

AMERICAN VETERINARY REVIEW.

JUNE, 1896.

EDITORIAL.

TUBERCULIN AND MALLEIN.

TUBERCULIN.—Prof. Nocard is continuing with enthusiasm his propaganda in favor of tuberculin, of its advantages in the diagnosis of the presence of tuberculosis in cattle, and of the benefit that could be derived from its use in the control of that true bovine plague. Our readers have already on various occasions been made familiar with his efforts, his numerous experiments and applications, as well as with the lectures, without number, that he has already delivered on those various topics. In one of those recent opportunities, after presenting concise statistics upon the prevalence of tuberculosis in various parts of Europe, relating several instances of the contagiousness of the disease; having shown that to *contagion* and to it alone was due the continuous but slow spreading of tuberculosis, he then urged the importance of the use of tuberculin, and concluded his lecture by answering some serious objections which were made against tuberculin, and which, having also been made in America, we think will prove interesting to our colleagues on this side of the Atlantic. Prof. Nocard said :

" 1st. It has been said and written in agricultural journals, that the *injection of tuberculin might give tuberculosis to healthy animals.*

" It suffices to know how tuberculin is prepared to be satisfied of the inanity of the danger. It is true tuberculin is extracted from cultures of the bacillus of tuberculosis; but these cultures, once complete, are first sterilized at the autoclave to 110° C., a heat which no living being can resist; they are then concentrated in the water bath, to the tenth of their primitive volume; during this operation, which lasts at least two hours, the liquid culture remains to near 100° heat; then, after filtration, the remaining liquid is diluted in

10 times its volume of phenicated water at 5%. Each of these steps would be sufficient, alone, to destroy all the bacilli that the culture contained. The so-called danger is then absolutely imaginary.

“2d. It has been said that *tuberculin may not give any reaction in some tuberculous animals.*

“It is true. Some tuberculous animals do not react to tuberculin! But, it is only when the disease is in its last stage, when animals are truly phthisic. And, then, the symptoms of the disease are evident, the diagnosis is easy and tuberculin is no longer necessary to establish it.

“The objection falls of itself.

“3d. It has been said, more serious objection, that *tuberculin can produce reaction in healthy animals.*

“This is a positive error. It is easy to understand it when one thinks that tuberculin denounces the presence of the most recent and of the smallest lesions! Such being the uncontested fact, it can be said that if lesion, denounced by the tuberculin, has not been detected, it is because it has not been sufficiently looked for; because the post mortem has been badly made.

“4th. It has also been said that *some non-tubercular affections of the lung or other viscera, can give reaction with tuberculin like tuberculosis does.* Another error! Neither will actinomycosis, vermicular bronchitis, nor the echinococci, the flukes of the liver, to mention only the most frequent diseases, give rise to tuberculin reaction, if they exist alone; but it can be easily appreciated that with these a very small tubercular lesion may have existed, that it might have been overlooked at a post mortem and yet that this was the cause of the reaction.

“5th. *Tuberculin has the serious objection that it accelerates the development of tubercular lesions to such extent that an animal would soon become useless and valueless, while if it had not been tuberculinized it might have rendered good service.*

“The aggravation of tuberculous lesions under the influence of tuberculin is a common fact in man—it is exceptional in bovines. I have observed but 3 cases out of 3500 injections that I made myself, and, besides, when it takes place it is always upon animals phthisic to the last degree and consequently useless.

“6th. *Tuberculin facilitates the passage of the bacillus in milk, and in that way milking cows very slightly affected would become valueless after the injection.* I can positively say that such is not the case, as I have studied this important side of the question for a long time. I have had in my laboratory tuberculous milking cows, which at first I employed to test the activity of the various tuberculins prepared at Pasteur Institute; some of these cows received 15, 20, 30 injections in less than a year, and not only did they keep up reacting, but their milk, non-virulent before the experiment, remained so all the time. Last year I systematically made an injection of tuberculin, every week for two months, in a cow of mine, far advanced with tuberculosis; every week also I injected in the peritoneum of 4 guinea pigs, 10 c. c. of milk to every one; none of the 32 pigs experimented upon has become tuberculous.

“7th. It has also been said that a *first injection of tuberculin prevented tuberculous cows reacting with a second injection.* That the fact takes place, I will not deny. But I can affirm that it is rare, surely in less than 5% of the cases; on the other side, it takes place only in animals slightly affected, having lesions of little importance, almost insigni-

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ficant, already encysted, perhaps not virulent, at least of little danger to the point of view of contagion. By opposition, I could mention a number of cases which did not stop to react to injections of tuberculin repeated 15 days apart. In many establishments I know the test is renewed every 6 months and every 3 months, the tuberculous subjects, recognized as such at the first, are still reacting."

For Prof. Nocard, as for almost all veterinarians, the diagnostic power of tuberculin is well established,—and his method to make agriculturists and breeders know its value is one that can be but beneficial to the cause of the control of tuberculosis.

MALLEIN.—If the value of tuberculin has found in Prof. Nocard a champion, so to speak, he can also claim the same title for mallein, notwithstanding the objections that are presented to its general use by some French authorities and principally by Mr. C. Leblanc. While this last eminent veterinarian does not deny that mallein has great value, he hesitates to accept it as a panacea and specially objects to its general use in large establishments, where glanders would exist, and in which after malleination, numerous animals condemned by the test would be discharged and might after all be found in perfect health at post mortem. This amounts to saying that mallein will not always tell the truth; and Mr. Leblanc bases his opinion upon the results observed in some cases where no lesions were found, except *translucid tubercles*, which he cannot consider as lesions of glanders, inoculation of their contents having failed to produce the disease.

In answer to the severe criticisms of Mr. Leblanc, whose authority in the matter is not to be ignored, Prof. Nocard has recently carried out experiments which he reported at a meeting of the Société Centrale which go to substantiate not only his former statements in relation to the propagation of glanders by the digestive tract, but also proves that the *translucid tubercle is beyond doubt a glandorous lesion, and constitutes the first stage of the evolution of the classical tubercle*; and that the *translucid tubercles are much less rich in microbes than the caseous tubercles and that the microbes which they contain are rapidly destroyed by the cells*.

For some of us who have had horses destroyed for glanders

and found but a few of these translucid tubercles, the conclusive experiments of Prof. Nocard will strengthen their belief in the diagnostic value of mallein. Personally we feel that while perhaps more has to be learned in relation to mallein, certainly its value in establishing a diagnosis of a disease whose lesions may be very limited can no longer be doubted.

REGULATION OF VETERINARY PRACTICE IN FRANCE.—It is a point of rather peculiar significance that in the administration and the enactment of laws relating to this important subject, to find that in France, the birthplace of veterinary science, the veterinarian is not protected in his rights as much as in America, the last of the countries of the world where veterinary medicine has been established. To-day in France it is true the practice of veterinary medicine has certain rights which are well defined by law,—but in France yet veterinarians, especially in country districts, have to fight their way against quackery. The Government has time and time again been approached, bills after bills have been presented to the Chamber of Deputies in Paris, veterinarians all over the country, veterinary societies, all in fact connected with the practice of veterinary medicine; have appealed to the powers that be, but their efforts have always failed to reach the desired object. How different the subject stands in the United States, where we might say veterinary medicine has existed only since yesterday, and where we find in many of our States the veterinarian protected by sound and judicious legislation. The registration of none but regular graduates, which is required in several of our States, the certificate of licenses which is to be obtained from boards of veterinary examiners, and without which the registration cannot take place, and the privileges that are granted only to those who are thus registered, is a condition of which the young American profession can be proud of when glancing at the present state of the old French veterinary science. In one of his excellent "Chronicles," in the *Presse Vétérinaire*, we understand that Dr. L. Garnier intends to take advantage of the manner in which the veterinary profession is

regulated in America to urge upon the French government the necessity for similar legislation in France.

INTERNATIONAL VETERINARY CONGRESS OF CHICAGO.—A letter of inquiry will be found in our correspondence which is of some importance. Mr. Morot claims to have given not only his adhesion to the Congress, but to have also paid for the *comptes rendus* of the meeting. It is to be hoped that the secretary will do justice to the claims of our French *confrère* whose address may have been lost at the office of the secretary of the Congress.

EXPORTATION OF HORSES.—Apropos of the great increase in the export of American horses to England, some interesting statistics of which will be found in the news department, we would strongly advise the United States Government to exercise the greatest care in the inspection of horses leaving her shores for that destination, as the cry of "glanders" is already being raised by the English breeders against foreign horses. It is well known that this loathsome disease does not exist in our breeding districts, but only in the large cities, and that our exports are exclusively from the stock farms; but, with our experience with other live stock—notably cattle and hogs—we have a right to anticipate the same experience with our horses when the breeders of Great Britain become alive to the enormity of this new industry. The Government should, therefore, exercise the greatest vigilance in the systematic inspection of the exports, keeping a careful record of each individual, the state, county, and farm (if possible) from which it came, so that in case of a question as to the presence of a contagious disease, the history of the animal can be traced from its destination to its origin, and if the charge is unjust the Government will be in a position to refute the imputation, and if true, to trace its origin, and prohibit further exportation from the same source,—with the effect of fostering an industry that has proven a great boon to our breeders in the recent depression that we trust we have about passed through.

THE CHICAGO VETERINARY COLLEGE.—The announcement that the Chicago Veterinary College will open its doors next fall with a three years' graded course, is certainly pleasing and important news. With this change almost the last obstacle is removed which prevented the American veterinary colleges from approaching a uniform course of instruction, a state of affairs which would solve other important questions now pending before the Association of Veterinary Faculties. Those who have an insight into the history of this college know that already eight years ago an attempt was made to arrange for a three years' course, but at that time no other colleges could be induced to take similar steps, and so the contemplated change had to be abandoned against better conviction but from common competition. Now the time seems to have been ripe for such a move, and we can heartily congratulate the Chicago Veterinary College upon the courage and wisdom of its leading members. If the course of instruction will be up to a modern standard, as we are assured, and if educated and experienced teachers will constitute the faculty, instead of routine practitioners, who by self-appointment and supernatural inspiration take to teaching, having no time nor inclination for study themselves, then the results will be very soon apparent in a new and healthy growth of this college. Chicago is sadly in need of a modern school and if the Chicago Veterinary College can fulfil its promises and supply this demand, its future is bright, indeed, and its renown a certainty.

THE MASTER HORSESHOERS' PROTECTIVE ASSOCIATION, of Oregon, has secured the passage of a bill through the Legislature of that State making all horseshoers pass an examination before a board composed of three veterinary surgeons and two horseshoers as to their knowledge of a horse's foot, and to show that they are qualified to be practical horseshoers, *i. e.*, able to take a bar of steel or iron and turn it into a shoe, which will show that they are fit to be master horseshoers and run a shop properly.

ORIGINAL ARTICLES.

[WRITTEN FOR THE AMERICAN VETERINARY REVIEW.]

HEART DISEASE.

BY J. A. COUTURE, V.S., QUEBEC.

CASE IV.—TRAUMATIC PERICARDITIS IN A COW—DEATH.

In my last article on this subject (page 749 of the REVIEW) I insisted upon the necessity of examining the heart carefully when we were called to attend a case of supposed disease of the digestive organs of cattle. The following case will illustrate this recommendation.

In cattle the most common disease of the heart is traumatic pericarditis, whose frequency is due: 1st, to the tendency of cattle to swallow foreign bodies with their food; 2d, to the proximity of the pericardium to the diaphragm, consequently to the rumen. The fact is that some authors, for instance, Freidberger and Fröhner, believe that pericarditis is always caused by a trauma in this class of patient. That is not always the case, however, for I have published in the March number of the REVIEW a case which was certainly not traumatic; the most careful autopsy having failed to reveal the presence of a foreign body in either the rumen, the diaphragm or pericardium.

On the 10th of March last I was called to see a cow that required immediate attendance. I found an Ayrshire cow, seven years old, pregnant seven months, and I was informed by the stableman that the foetus must be dead as the cow was trying to expel it. The hand pushed into the passage found a dead foetus; the head and fore legs were already engaged in the vagina. It was removed without trouble and so was the placenta. I was going to leave the place when the attendant informed me that the cow had been feeding very little for a fortnight and that within a few days a swelling had appeared at the brisket. I found her pulse 90, weak; respiration 40; temperature 103. The patient was very weak, the rumen was sore on pressure, but was at

a standstill, no rumination ; diarrhoea was present a couple of days ago, but at this time she was constipated. The lungs were auscultated, with negative result ; the respiratory murmur was audible everywhere and percussion revealed a dull sound opposite the 4th, 5th, 6th and 7th ribs up to about the upper third of the chest. The heart was then examined : Pericardial dullness present on large surface ; the beats were very frequent (90) strong (though the pulse was weak), there was a very distinct noise of fluctuation at every third or fourth beat of the heart. This fluctuation noise could be imitated by gently shaking a bottle half full of water. There was an oedematous swelling in front of the sternum about the size of a boy's head. The diagnosis was easily made : Pericarditis (very likely traumatic), with fatal results soon. A treatment was prescribed, and I was to call and see the patient three days after.

When I called to see my patient I was informed that she was dead and buried ; she had been found dead that morning. The attendant showed a piece of wire, three inches long, very pointed at one end, and he informed me that it had been found sticking through the diaphragm and the pericardium. About two gallons of a yellowish liquid had been found in the pericardial sac. The heart was atrophied to a certain degree (it is always the case in pericarditis). This was the only information I could get from the man, but it was sufficient for me.

[WRITTEN FOR THE AMERICAN VETERINARY REVIEW.]

SOME REMARKS ON PERIODIC OPHTHALMIA.

BY GEO. G. VAN MATER, M.D., D.V.S., Lecturer to the American Veterinary College on Ophthalmology.

(*Syn: Moon Blindness—Recurrent Ophthalmia.*)

This affection is intimately related to certain climates, systems, soils ; showing a strong tendency to recur again and again, and usually ends in blindness from cataract or other serious injury. Its causes may be attributed to soil. On frequently over-

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flowed river bottoms, or marshy grounds, and on coasts of lakes and seas, alternately wet or dry, you will find this disease. In France, Germany, and England, where they appreciate horses (and veterinarians) this disease has largely decreased under drainage, etc. There are many other influences,—for instance, cloudy air, wet, damp climate and lands, as all these act to produce lymphatic constitutions, with an excess of connective tissue,—bones and muscles, of coarse, open texture, thick skin, "gummy" legs, long, coarse hair, etc. For instance, the heavy horses of Belgium and southwest France have suffered severely, while the high dry lands of Catalonia, Spain, and Dauphiny, Provence, and Languedoc, in France, have been lightly touched. Rank, watery foods are another cause, and the most likely situations to obtain such fodder are as described above—the marshy, wet lands. This rank feed undermines the nervous and sanguineous temperament and superinduces the lymphatic. Other foods act by leading to constipation. The period of dentition and training is an exciting cause, and it will be noticed that "moon-blindness" appears most frequently between the ages of two and six. Among other causes are local irritants, dust, smoke, severe rain and snow, acrid vapors, etc. No *one* of the above mentioned causes will suffice to cause it. *The alleged cause is a microbe, or the irritant products of a microbe, which is harbored in the marshy soil.* The prevalence of the disease on the same damp soils that produce ague in man and anthrax in cattle has been quoted in support of this. Also on certain farms irrigated by town sewage, we find plenty of cases of periodic ophthalmia. The presence of a definite germ in the system has not as yet been proven, and therefore, in the present state of our knowledge, we are only warranted in saying that the cause is in the *deleterious emanations* from the marshy soil in which bacterial fermentations are constantly producing them.

Heredity is one of the most potent causes. The lymphatic constitution is, of course, transmitted, and with it the proclivity to recurrent ophthalmia. This is notorious in the case of *both* parents, male and female. The tendency appears to be strong,

however, if either parent has ever suffered. Thus, a mare may have borne a number of sound foals, and then fallen a victim to this malady, and all foals subsequently born have likewise suffered. So with the stallion. Reynal even quotes the disease appearing in alternate generations, the stallion offspring of blind parents remaining sound through life and yet begetting foals which furnish numerous victims of recurrent ophthalmia. On the contrary, the offspring of diseased parents, removed to high, dry regions and furnished with wholesome, nourishing rations will nearly all escape. Hence some dealers take colts that are still sound, or have suffered from but one attack, from the affected section of country to the unaffected with confidence that they will escape. Yet the hereditary taint is so strong and pernicious that intelligent horsemen everywhere refuse to breed from either horse or mare that has once suffered from recurrent ophthalmia. The French government studs not only *reject* all unsound stallions, but refuse service to any mare that has suffered with her eyes. It is this avoidance of the hereditary predisposition more than anything else that has reduced the formerly wide prevalence of this disease in the European countries generally. A consideration for the future of our horses will demand the disuse of all sires that are unlicensed, and the refusal of any license to any sire which has suffered from this or any other communicable constitutional disease. Other contributing causes deserve passing mention: Unwholesome food and a faulty method of feeding undoubtedly predisposes to the disease and in the same district *the carefully fed* will escape in far larger proportion than those poorly fed. But it is the same as with every other condition which undermines the general health. The presence of worms in the intestines, overwork and debilitating diseases and causes of every kind weaken the vitality and lay the system more open to the attack. Thierry, long years ago, showed that the improvement of close, low, dark, damp stables, where the disease had previously prevailed, practically banished this affection. Whatever contributes to strength and vigor is protective. That is trite, but extremely applicable under this head. Whatever

then is contributive to weakness and poor health is provocative of the disease in the predisposed subject.

The symptoms vary according to the severity of the attack. In some cases there is marked fever and in other slighter cases this may be almost altogether wanting, but there is *always* a lack of vigor and energy bespeaking general disorder. The local symptoms are in the main those of internal ophthalmia (for instance, such as are present in retinitis, choroiditis, irido-choroiditis, irido-cyclitis, etc., in all of which the conjunctiva may participate), with, in many cases, an increased hardness (tension) of the eye-ball (glaucoma), from effusion into its cavity. The contracted pupil does not expand much in darkness nor even under the action of atropine. Opacity advances from the margin (limbus) over a part or whole of the cornea, but so long as it is transparent there may be seen the turbid aqueous humor, with or without flocculi; the dingy iris, robbed of its clear, bright aspect; the slightly clouded lens, and a greenish, yellowish reflection from the depth of the eye. (And let me emphasize right here the necessity of ascertaining the tension of an eye before instilling atropine—the danger being that of precipitating an attack of glaucoma with resulting total blindness, of which more in some future paper.) From the fifth to the seventh day the flocculi precipitates in the lower part of the chamber simulating (or forming true) hypopyon, and exposing more clearly to view the iris and lens. Absorption commences, so that the eye may be cleared up in from ten to fifteen days. The characteristic of the disease is, however, *its recurrence* again and again in the same eye until blindness results. The attacks may follow each other at intervals of a month, more or less, but they show no relation to any particular phase of the moon, as might be inferred from the familiar name, but are determined rather by the weather, the health, the food, or by some periodicity of the system. From five to seven attacks usually result in blindness and then the *second eye* is liable to be attacked until *it* is also ruined. In the intervals between the attacks some remaining symptoms betray the condition, and these become more marked after each successive

accession of the disease. Even after the *first* attack, there is a bluish ring around the margin (limbus) of the transparent cornea. The eye seems smaller than the other *at first*, because it is retracted in the orbit, and often after *several* attacks because of *actual shrinkage* (atrophy). The upper eyelid (*palpebrarium superioris*) in place of presenting a continuous arch has at about one-third from its inner angle (internal canthus) an abrupt bend, caused by the contraction of the levator muscle. The front of the iris has exchanged some of its clear, beautiful brilliancy for a lustreless yellow, and the depths of the eye (as before mentioned) presents a greenish yellow reflection. The pupil remains a little contracted, except in *advanced* and *aggravated* cases, when with an opaque lens (cataract) it is widely dilated. If one eye only has suffered, as is common, the contrast in these respects with the sound eye is all the more characteristic. Another feature is the erect, attentive carriage of the ear to compensate to some degree the waning vision. The attacks vary greatly in different cases, but the *recurrence* is *characteristic* and *all alike* lead to cataract and intraocular effusion with pressure on the retina and abolition of sight.

The *prevention* of this disease is *the* great object to be aimed at, and this demands the most careful breeding, feeding, housing and general management as indicated under causes. Much can also be done by attention to location, drainage, etc.

The treatment is unsatisfactory, but is largely the same for the common internal ophthalmias. Some cases, like rheumatism, are benefited by scrupule doses of powdered colchicum, and two dram doses of salicylate of soda, twice daily. In other cases, with marked hardness (tension) of the bulbous from intraocular effusion, puncture, or iridectomy, has helped. During convalescence, a course of tonics,—two-dram doses of oxide of iron, nux vomica, ten grains; soda sulphate, one ounce, daily, is desirable to invigorate the system and aid in warding off another attack. The knocking out of wolf-teeth and cutting out of the membrana nictatans is preposterous. The temporary recovery would take place in two weeks though no such thing had been

done. And the breaking of a small tooth, leaving its fang in the jaw, only increases the irritation. I wish to acknowledge the splendid article on periodic ophthalmia by Dr. Jas. Law, in a "Special Report on Diseases of the Horse," 1890, which I have taken as the basis of the above.

INAUGURAL ADDRESS OF DR. F. W. SKAIFE,

PRESIDENT OF THE CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION.

GENTLEMEN:—I must thank you for the honor you have done me in electing me President of this Association. I assure you I appreciate the compliment, and nothing shall be wanting on my part, as far as I am able, to make the year a successful one. I intend to make a few random remarks and I hope to claim your indulgence for a short time.

To begin, I shall read a communication which appeared in the AMERICAN VETERINARY REVIEW some time ago (Nov., 1894). It is part of a letter sent to the editor, criticising things veterinary in California. This is an Eastern veterinary estimate of Californian quackery :

"This section of the country is rank with what is called the old-time horse doctor, otherwise known as the quack, each with his own specific for lung fever, etc.; and, though they have lost a great many cases, it is strange the amount of confidence the public still retains in them. I met one the other day who did not believe in the administration of internal medicines, but is accustomed to slapping on a blister, with the remark that he has had twenty-four years' experience in the business, and if this does not do he don't know what will. Yet the man has a yearly contract with an ice company manufacturing artificial ice, and they have twenty-six fine horses in the stable under his care, besides the rest of his practice in that section of the city.

"Besides this man, I have met a fellow claiming to be a specialist in castration—claiming to be the best in the United States, and a more slovenly, dirty farm-hand it would be almost impossible to meet. The woods here are full of just these kind of men, and yet a board of examiners, consisting of graduated veterinarians, appointed by the State, allow these men to pass a bogus examination, and to go forth with a State certificate, fully licensed to practice veterinary surgery and medicine. They can talk of their societies, and the promotion of harmony in a profession, but where could there be harmony, or friendly discussion, where one-half the members would not understand what the other half were saying?

"I merely write this to give you some idea of the situation of things in the far West, and also some of the men I have to contend with. I think this place is at least twenty-five years behind the age in this profession, and no doubt it will take some time before the

public will be able to discriminate between the old horse doctor and the modern veterinary surgeon ; still time will tell."

Gentlemen, I need hardly say that this is a very absurd article, and one that needs very little refutation. Yet it shows that men will come here from the East who are absolutely incapable of recognizing the fact that there are as good practitioners here as can be found in America. Silence is the only way to treat an article of this kind ; that is with the contempt it deserves. Yet this same article brings to my mind a few matters which might easily be remedied in our every-day practice. Take, for instance, the matter of dispensing medicines. Many members of the profession, with whom I had dealings in the East, dispense their medicines and send them out in wine, beer and sauce bottles, some of which are clean, others fairly clean, and others not fit to hold medicines or lotions at all. It looks particularly nice, for instance, for a lady to receive a bottle of medicine for a pet dog, stamped all over with "Worcestershire Sauce," and over this, or some part of it the label, sometimes gorgeous, of the lucky veterinary man sending out the medicine. The chemist who dispenses veterinary medicine, and there are many, is wise enough to send it out in good shape ; so also is the patent-medicine man. Again, how often are powders sent out wrapped in old newspapers, and looking more as if they had come out of some second-rate candy shop than from the establishment of a professional man. Ointments and dog pills again are sent out in the cheapest and commonest of chip boxes. Now the chip box is a most useful article to the veterinarian, but they are totally unfitted to send out ointments in, unless those that are to be used immediately. Neat and clean dispensing is just as important to the veterinary surgeon as to the doctor and chemist, and I feel convinced that there would be nothing like so much grumbling in paying for medicine if we would but consider what a remarkably long way appearance goes.

There is yet another very important point, which certainly a large proportion of the profession in this country miss, and that is not putting sufficient value on instruments. I will illustrate

what I mean by one instance that came under my observation while practicing in Springfield, Mass. I was out one day with a veterinary surgeon who was going to see a stallion that quidded a bit. He took with him a splendid case of dental instruments, which he displayed to great advantage. After he had examined the mouth and found the teeth very sharp, and one upper molar, the front one on the near side, rather long, he selected a pair of shears from his case and proceeded to cut the point off, which, after trying another pair of shears, he did. He then rasped the teeth, and charged the man ten dollars for the operation, which was paid at once. This charge seemed to me rather large. Now, many a man would have used a chisel and a hammer, and charged about a quarter of the price. Again, how many surgeons expect to have a proper value put on their work when an ordinary pocket knife is used for lancing abscesses, and for other minor operations. How many times do we see wounds of horses and dogs sutured with string; string and needle often twice too big for the nature of the wound, and without any relation to the size and nature of the animal.

There is no excuse in this country for poor instruments, for, in my estimation, America has a stock of veterinary instruments which for cheapness and utility cannot be surpassed.

I do not wish, for one moment, to suggest that these remarks apply to anybody present, nor do I suggest that surgery is practiced any more carelessly in this State than it is elsewhere, but I do know that there is a tendency among veterinary surgeons to become careless. I have felt this myself, and, though I may be preaching what I do not practice, still this gives me an opportunity to say what I know to be right.

Regarding the advancement made in our profession in the last few years, I think we have much to congratulate ourselves upon:—the uses of tuberculin and mallein, the better inspection of meat and milk, and the founding of efficient veterinary colleges throughout the country. But there is a great field for investigation, and though we may not be able to startle the world with such discoveries as the cathode ray, and Dr. Edson's cure

for consumption, such diseases as cancer and glanders might readily be cured by discoveries of veterinary investigators.

A few words about advertising. This is a very important consideration with us. As soon as the young practitioner puts up his sign, the question immediately arises, "How shall I make myself known to the public in the shortest possible time?" I think, to put the matter in a nutshell, we should advertise the profession in a legitimate manner, and not individually. A man may contribute papers to societies, he may write letters to the papers, he may give lectures, but outside of good efficient work, I cannot see in what other way he can possibly advertise himself. Strict attention to business, and the making of friends, is the secret of success with nearly all the medical men in this city. One little matter that will surely help the young practitioner is to have the reputation of kindness to animals. He should become a promoter of the Society for the Prevention of Cruelty to Animals; he should avoid everything in practicing that gives pain, except when absolutely necessary. Anaesthetics should always be used where possible. Docking, ear-cutting and spaying should not be countenanced. As regards the former, docking, it is merely a matter of fashion. It is a mutilation of the noblest animal we have. The same might be said of ear-cutting, but I am glad to say that no dog can be shown hereafter, at a dog show across the water, with his ears cut.

Regarding spaying and the castration of the dog I quote from one of the first authorities upon the dog in America; namely, T. Wesley Mills. He says:

"It is impossible to predict what effect on the physical and psychic nature of the dog these operations may have. After ether, the subject may be little more than a useless, animated mass of flesh, unworthy the name of 'dog.' The author would not allow any dog he owned to be thus operated on, nor could he be induced to perform it except when the parts are diseased; and he hopes the time is not far distant when every reputable veterinary surgeon will take the same view of the case, or absolutely refuse to thus run the risk of destroying the dog, as a dog,

merely to gratify the whim of some owner who wishes to shirk his responsibility. Every man should either not keep a dog at all, or keep the animal as a dog. A spayed or castrated dog cannot win a prize on the bench."

When we consider the difference in the practice of veterinary medicine of to-day, and that of the past decade, we have, I think, advanced as rapidly as the medical profession did. It was not so long ago that cupping and bleeding were resorted to as the sheet-anchor of nearly all inflammatory diseases. The barber's pole is significant of this. We will have to go steadily up the ladder, step by step, until we assume a position equal to theirs. Our fathers used a bullet with a blunderbuss. We to-day have a bullet for the magazine rifle. Both the weapon and the projectile are altered.

Opium is a mainstay in medicine, but we also use its alkaloids with the subcutaneous syringe. Then again, whilst aloes has still the same therapeutic action, some have ceased to use it for many cases where it was formerly considered all important. The setoning and blistering which was practiced in the treatment of pleuritis and pneumonia, is a thing of the past, and many other instances may be quoted in which the method of using the drugs is changed.

It has been by the blending of the teachings of science and of experience, but to-day we can point to a lower percentage of deaths in many diseases, and to the almost disappearance of some.

Without doubt, clinical study must form a large part of the training of the surgeon, human and veterinary, and especially so is this the case with the latter, for he has few of those aids to diagnosis which the surgeon of the human patient can apply.

At the present time we are comparatively in a state of quiescence; at least, there are no steps agitating our minds to any great extent, unless it is competition in its various forms, which seems yearly on the increase. I do not think legitimate competition is objectionable. It has a tendency to stimulate us and prevent lethargy. I speak more especially against misrepresentation

by alleged practitioners, and others who encroach on our rights by representing themselves to be qualified to practice veterinary surgery, and thus imposing on country clients especially. This matter is one which certainly requires more attention than it has heretofore received. Now that the educational standard required of the student is such as to necessitate a longer period of study, and preparation through greater fields, I consider it is our duty, not only to the newly qualified veterinary surgeon, but to our own personal welfare, to try to combat the present state of things which certainly seems to be developing, and instead of allowing further obstacles to our professional progress to spring up, we ought to be seeking out fresh fields of occupation.

Gentlemen, it would ill become me to trespass upon your time any further, when we have such interesting papers ahead of us. I therefore will close this address, thanking you for your kind attention, and hoping you have found it in a slight measure worthy of interest.

SCIENTIFIC BREEDING.

BY J. R. KELSO, D.V.S., BARABOO, WIS.

A Paper Read before the Wisconsin Society of Veterinary Graduates, February 5.

It is not my intention to present to you any special method or system to follow in breeding or selection, applicable to all breeds, or suitable to all breeders; neither to eulogize or provoke criticism for or against any particular breed or breeder, fully believing that a higher and more scientific system of breeding can be adopted by the breeders of each individual breed, and this, by a more thorough and scientific selection of sire and dam, and thereby reach a higher and more perfect physical conformation.

The primitive horse was a diminutive animal, not much larger than an ass, standing about thirteen hands high, the largest specimen not exceeding fourteen hands. *The head was*

disproportionate in size. Pictures of these horses have been preserved to us in a very curious way. There were artists among the cavemen of those days. Their pictures of the horse and other animals, made on antlers and horns, are drawn "with a spirit, a rigor and a fire that would do credit to an artist of to-day." In the Swiss lake-dwellings of the stone and early bronze ages, we find not only the bones, but horses' bits made of stags' horns and bronze. These bits are only three and one-half inches wide, hardly suitable for a child's pony of to-day. A cob thirteen and one-quarter hands high required a bit four and one-quarter inches in width, and a Shetland pony of eleven and three-quarter hands required a bit of three and three-quarter inches in width, and shoes three inches wide. Modern bits for horses vary in width from four and one-half to seven inches. In the early and late bronze, also iron age, the horse was used for food and was tamed. Then Homer wrote of them being harnessed and used on chariots for war or races, and occasionally for riding, but were yet too small for any very special exercise in that way. Domestication had not yet commenced to tell in increasing the size of the animal. After losing all reminiscence of its former freedom, and with the care of man aiding it, a sudden improvement was the result in size and adaptability. From such period it has been improved into innumerable races and breeds.

Instances of Increase in Size from Scientific Breeding.—Mr. Anthony Hammond, in a recent issue of *Bailey's Magazine*, states that during the last 150 years the thoroughbred has increased three inches in height. In the racing volume of the Badminton library, it is stated that Poland has produced several thoroughbreds sixteen hands in height. Mr. Hammond also states that whereas fourteen hands was formerly the recognized standard for the hackneys, previous to 1885 it was increased to fifteen hands three inches, and at the latter date the R. A. Society was induced to allow entries in the hackney class of animals of that height and over.

Again, a Mr. T. Dykes says that "the primitive Clydesdale

was the Galloway, the ancient Scottish native horse two inches or so less in height." Again, Lawrence, in 1809, gives the height of the Galloway as from thirteen to fourteen hands. Prof. Wallace, of Edinburg University, 1889, gives the height of the Clydesdale of the present day at from sixteen to sixteen hands two inches.

Reproduction and Conception—Is the function by which the species is preserved, and is accomplished by the organs of generation, the union of two fundamental elements, ovum and spermatozoa; and the development and growth of animated creatures dates from that instant when, by the act of impregnation the egg receives a specific stimulus from paternal spermatozoa. The impulse thereby communicated manifests itself by cell division and proliferation. Nature proceeds in the preparatory and maturing of the development of male and female germs in parallel steps, each step or mode of progress to the next being exactly its equivalent, and that one is of equal value morphologically and physiologically to the other. In the stages prior to union there is nothing even to determine the influence of sex. In character the sexual contributions are equal, therefore there can be no sexual determinative function for either to exert. Hence, the conceiving elements or cells being equal, then conception is the joining of two equals into intimate unity. From the joining of these two equals proceeds to multiplication of cells differentiated into embryonic organs and all this moulding occurs during the nutrient, retentive and protective pregnancy of the mother. Thus science seems to teach some beautiful lessons in monogamy and the equality of sexes. Thus we find the new individual must contain not only hereditary matter, but that even in male and female portions.

Breeding.—Whatever the animal, its form, organization and general make up, will be an indication of its true type and character. It is a fixed law of nature that this should be so. To illustrate: the thoroughbred horse is courageous, high strung, active, sinewy, impatient under restraint, and not given to carry much flesh or fat. The heavy draft horse carries much

flesh, is docile, honest in the harness, possessing great bone and sinew, and is on the whole more sluggish.

Results of Improper Breeding.—In breeding lays the foundation for disease, bad conformation, transmission of undesirable characteristics, lowered vitality, impoverished mental and nerve power, likewise of blood, resulting in more or less weakened condition of the two great life-giving principles, germ and sperm cells. Great evils result not only from the mingling of the blood of members of the same family, but that of separate and distinct races. In breeding an opportunity is never lost of securing, early and late, from the willing or unwilling, fit or unfit dam, a colt, calf, lamb, litter or brood. Further, the preservation of all these is aided by all the means in the power of science and art that can be brought into play. What is the result? The weak is preserved at the expense of the strong; off form and sub-standard are favored. Hence we have, as compared with nature's process, the survival not only of the unfit, which would otherwise have been killed off, but the development of all possible deteriorating characters, with some possible grains of wheat amidst much chaff, which, because they have pedigree to their name, escape final destruction. They are all devoted to the breeding pen, with a handing on to generations yet unborn, of all the worst accumulating pre-dispositions of the germ-plasm. In the literature of the Bible, we read of the prophet Ezra condemning the Jews in these words, "When I heard this thing, the mixing of the holy race with other races, I rent my garments and my mantle, and plucked off the hair of my head and my beard, and sat down astonished."

This is an age of connivance, supplementing bodily defects and deformities by many and various kinds of artificial appliances. Go to any race track and there we find examples of what occurred on the Galesville track in 1894, out of twenty-seven-starters, no less than twenty-six wore hobbles. Look at all this work required to cover deficiencies. The perfect trotter must have a trotting spirit in a trotting body. We have fallen

largely into the habit of looking more to the reputation of a trotting stallion or family for speed than to their way of going; while fast horses of every conceivable variety in shape and conformation are made for a time steady trotters, by the use of all sorts of weights, boots, pads, hobbles and other appliances. In the application of all these artificial means to make up deficiencies of bodily form, we have overlooked the all important fact of so selecting and breeding, that nature shall supply with a conformation that obviates all resorts to such appliances. I also claim, without fear of successful contradiction, that three times a week, or every other day, is as often as any horse should be permitted to service. Oftener than this, the seminal fluid of the sire is immature; and if a colt is produced at all, he will be almost sure to be big-boned, loose-jointed, uncompact muscle, with feeble constitution. Were proper attention paid to this matter, failure to impregnate would occur much less frequently than it now does. Further, in my opinion, better results may be acquired by breeding the dam as near the end of heat as possible, thereby allowing the ovum full time for maturity.

Heredity.—Heredity as generally understood implies the contribution of two sex elements, male and female. These are considered to offer certain constituents, however different they may be supposed to be, bearing certain hereditary influences. And that in two lines of descent, male and female, contributing their hereditary proportions, not only of the present type, but of type far distant. When the dam and sire both possess a due amount of vigor, the foal will combine in itself the most marked characteristics of both, while any quality peculiar to either of them is apt to be prominent in the offspring. Peculiarities of habit and temper force themselves upon the notice of every person familiar with domestic animals, and by close observation we notice that the slightest peculiarities are transmissible. Few people will gainsay the fact that brain power is hereditary, as we have ample proof in human beings, and is also well demonstrated in homing and tumbler pigeons, the young birds nearly always inheriting the homing and tumbling propensities of their

parents. The results of training must not be confused with heredity. Heredity—its nascent power has always been present, more or less, in the animal. Training in such lines as such faculties may exist, develops it, intensifies it; the more of each, the more there will be to expect as the combined result. Therefore who would attempt to train a Clyde except for draft, a hunter except for clearing obstacles, a trotter except for trotting. These laws govern heredity in the brute creation as persistently as they do in the human family, and the introduction of good, or the eradication of bad qualities will be found amenable to the breeder's science through the potent agency *selection*. This forms the stepping-stone to scientific breeding, and until man has learned to take advantage of the hereditary tendencies toward good qualities, and works away from those that bring bad forms, bad temper, sterility, tendency to short life, and unpromising progeny, he is not worthy of being called a breeder of improved domestic animals.

Selection.—A sire or dam should be rejected for any one really bad fault. The greatest strength of either is limited by his or her worst point. They are often selected because they possess one or more very good points. This is a wrong principle in selecting. The selection of sire and dam should begin by rejection for bad points. Brood-mares should be selected with as much critical scrutiny as stock horses, individual excellence is the criterion always in view, and embraces size, form, blood, color, performance, including ample and facile breathing apparatus.

I firmly believe in a balanced structure for the greatest physical capacity. Moreover, I contend that the undue development of one portion of the organism is plainly at the expense of its co-ordinate part.

Applying these conclusions to the horse, I contend that when the horse is balanced, that is when he measures as high at the coupling as he does at the withers, and as long from the shoulder points to the posterior projection of the hips as he is high from the ground to the withers and the coupling, then the carcass is

exactly balanced, upon perfectly proportioned limbs, and other essentials being present, such as blood elements and development, he can perform his duties, be they that of the draft- or the race-horse, with greater effect than if the mechanism was out of balance. Therefore to breed the natural born, actual trotter with the most certainty and the best results, combine the true and tried, genuine producers of such, and this principle holds good in all breeding.

In the future, when a more accurate science is applied to breeding the trotting horse than merely the intensification of his trotting blood, and physiological perfection receives its adequate attention, defective construction of shoulder and hip, of elbow and stifle, will be so far remedied by judicious breeding of perfect specimens that there will be neither splay-footed, nor pigeon-toed performers on the trotting turf. Physiologically, much more than in trotting potency, the perfect American trotter is in the distant future as a type.

EQUINE RELAPSING FEVER.

BY T. W. WATSON, V.S., CHIPPEWA FALLS, WIS.

A Paper read before the Wisconsin Association of Veterinary Graduates.

Called by Professor Robertson "surra," or equine relapsing fever, I have adopted the latter, as I think it better represents the general character of the disease. An enzootic disease peculiar to the horse, of which but little is known and but very little can be found in veterinary literature regarding this disease. The only account I have seen of it is given by Robertson, and is very indefinite. It first made its appearance in the vicinity of Eau Claire about seven or eight years ago, and has continued irregularly almost ever since, within a radius of about a hundred miles, very seldom, if ever, appearing where only a few houses are kept together, generally attacking large herds. The mortality has been very great from this malady; I think fully ninety per cent. of the cases prove fatal.

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Symptoms.—Dullness, abdominal breathing, great elevation of temperature, runs from 105 F. to 108 F., pulse weak and irregular, mucous membranes very pallid, staggering gait, there may be swelling of one or both of the posterior limbs, which may extend to the sheath and abdomen, very loud, unceasing intestinal murmur, sphincter ani relaxed, bowels generally loose and, owing to the relaxed condition of the sphincter, the faeces fall away without the animal making an effort to expel them, coat rough and dry, the general appearance of the animal would indicate over-exertion. Although the appetite is retained fairly well throughout, there is very remarkable loss of flesh or gradual wasting away, and as the disease advances, control of the posterior extremity is almost lost. It runs its course in from ten days to as many weeks.

I have made several post-mortem examinations without any very satisfactory results. The pallor observed in the mucous membranes before death seems to be general in all the tissues throughout the body. In fact, the tissues have the appearance of being bloodless. I found in one an enlarged spleen, but in the others that I have examined the spleens were of normal size.

Aside from degeneration of some of the structures, nothing further seems to be observable.

Causes.—There have been a great many theories advanced as to the cause of this malady. It was thought for some time to be anthrax of the horse. This was succeeded by the very erroneous idea that it was a disease caused by eating the golden rod (*solidago odora*), and it is to be regretted that the latter idea was given so much credit by some veterinarians. It was a foolish conclusion, jumped at without consideration. No doubt you are all well aware that the plant contains no poisonous properties whatever. It has very slight astringent diaphoretic and aromatic actions, but is almost inert. Effusions made from the dried leaves are used with impunity by some people in place of tea. I think this is sufficient proof of the absurdity of the theory. I sent some specimens of blood extracted from a horse just before death to the Bureau of Animal Industry, Washington, D. C. Their

report stated that in their examination they could discover no traces of anthrax, but on the whole their report was quite unsatisfactory, and I understand that other specimens have been sent to the Bureau since with about the same results. There is no doubt but that it is caused by a vegetable poison taken into the system through the mouth. The agent establishes itself in the blood, which seems to be its habitat, and causes destruction of the red blood corpuscles. Although I have given the disease considerable attention, I am not prepared to say positively whether or not it is contracted solely in the pasture, as I have seen it developed both in the pasture and in the stable, also on high and low land. Yet I am inclined to believe that it is contracted in the pasture and lies dormant in the system, only developing after a period of latency, when the system is in proper condition for its development.

Treatment.—The treatment of this disease has not been very satisfactory. Almost everything has been given in the way of medicine, but without availing but little, and I think we are as much at sea to-day as when the disease first made its appearance.

In my own experiments with the disease I have felt quite certain that I had found the right agent that would combat the ravages of the malady, but if successful in one case the result would be just the reverse in the next. About the only thing I would recommend in the way of medicine is heart stimulants and general tonics, and I think some good antiseptic, such as carbolic or boracic acid, would be worthy a trial.

The treatment has been so unsuccessful that the people have become discouraged and the majority have concluded to let them take their chances rather than go to the expense of treating them. Owing to the disease visiting only large herds, the loss has been confined to a few, mostly lumbermen. The number of horses lost will not exceed fifty per cent. of the reports circulated last fall.

COLLEGE COMMENCEMENTS.

NATIONAL VETERINARY COLLEGE.

The fourth annual commencement exercises took place at this college, April 11th, at 8 p. m. Speeches were made by Professors Salmon, Willits and Lockwood. The first college prize was won by E. E. Seitz, of Seitzland, Pennsylvania. Honorable mention was made of J. W. Petty, of North Carolina; W. R. Jobson, of Pennsylvania, and B. E. Harper, of the District of Columbia. Reid R. Ashworth won the junior prize for scholarship. The following received the college degree—D. V. S. : P. A. Fish, D. Sc., New York; E. E. Graffam, District of Columbia; R. H. Hadfield, Rhode Island; B. E. Harper, District of Columbia; J. M. Heagerty, Maryland; W. R. Jobson, Pennsylvania; C. H. Lockwood, District of Columbia; J. W. Petty, North Carolina; C. H. Morrison, Connecticut; F. H. Schneider, Pennsylvania; E. E. Seitz, Pennsylvania; John Lockwood, D. V. S., District of Columbia.

WHAT IS DOCKING ?

Prepared by JNO. P. HAINES, President of the American Society for the Prevention of Cruelty to Animals.

Docking is the amputation of a portion of the horse's tail. The anatomy of the tail may not be fully understood, nor the methods of docking be generally known. We think it necessary, therefore, to acquaint the public with the facts about docking and with the opinions of many well-known veterinary surgeons upon the dangers, the cruelty, and the uselessness of the operation.

The tail is composed of bones, muscles, nerves, and blood-vessels, which are enveloped in skin, as sensitive on the under surface as on any portion of the body. The spinal cord or spinal marrow, is lodged in the canal of the backbone. It extends from the base of the brain to a short distance behind the loins, and it terminates posteriorly in a pointed extremity, which is continued by the mass of nervous trunks—*cauda equina*. In number, the spinal nerves are forty-two. They are in pairs, of which the superior is the sensory nerve, and the inferior the motor nerve. The horse's tail has fifteen bones and

four pairs of muscles. These latter are known as the two *erectores coccygis*, the two *depressores coccygis*, the two *curvatores coccygis*, and the two *compressores coccygis*. They are all supplied with nerves of sensation and volition. To prepare a horse for docking, the common procedure is to secure him firmly by a twitch on his nose, to raise one of his forelegs to his breast and to tie it there, to cut the hair from around the stump of the tail, and to tie a string, or a piece of catgut, above the vertebrae which are to be removed. Finally, after the severance of the tail by the docking instrument, a red-hot iron is applied to stop the bleeding. As regards the torture, the behavior of the animal while undergoing the operation is sufficient evidence. The horse's first action is to jerk his head as violently as he can, but that movement is soon controlled by the twitch on his nose, of itself an instrument of torture; he then crouches nearly to the ground, and screams or moans with pain. The operation ended, he is found to be dripping with sweat. As witnesses have expressed it, "the water fairly runs off him."

Docking is advocated chiefly by grooms, who wish to spare themselves the considerable manual labor of caring for the tail; and upon the recommendation of such men the thoughtless owner of the horse consents to the mutilation.

The practice of docking was introduced into this country many years ago from England. That the custom is an old one we learn from Hartmann, in his "*Traité des Haras*," p. 274. He reports that the Council of Calchyd, which met in England towards the close of the eighth century, prohibited the practice of docking horses, on the ground that it was "a barbarous custom." In our day and country docking has been condemned by the most prominent veterinarians and horsemen, and also by the United States Veterinary Medical Association at their thirty-first annual meeting at Philadelphia, Pa., September 20, 1894. A standing reward of a large sum is offered by our Society for the arrest and conviction of any person found docking horses.

The usual arguments for the mutilation are, first, that "the operation is nearly, if not quite, painless, owing to the low degree of sensibility possessed by the tail, and to the rapidity with which the amputation is effected"; second, that "removing some inches of the tail prevents harnessed horses from throwing it over the reins, and so prevents running away or kicking." These arguments are answered by Dr. George Fleming in a way that may be regarded as conclusive.

"Nothing," says that author, "can be further from the truth

than the assertion that the tail is endowed with little sensibility. It is composed of bones, muscles, nerves, and blood-vessels as abundantly as any other part of the body. From inquiries instituted during many years and from personal experience, we find that when horses have run away, or kicked, owing to the reins getting under the tail, they have nearly always been 'docked,' and their behavior was, no doubt, due to their remembering the painful operation and consequent dread of anything touching the tail. A short tail is more readily thrown over the reins than a long one, as it is more horizontal, and the reins can more readily drop under it. Besides a person who would allow the reins to drop under his horse's tail is not fit to be a driver."

From an artistic point of view docking is a disfigurement which destroys the contours of the body. When it is preferred that the horse's tail be short, banging the hairs close to the stump is all that is necessary. There is, in fact, no single valid argument in favor of docking for any reason but disease of the tail. On the other hand, however, the diseases that may result from docking deserve special mention.

The most serious as well as the most common "accident," after the operation, is *tetanus* or lockjaw. Paralysis, due to inflammation of the spinal cord, may also ensue. If the ligature to check haemorrhage has been too tightly applied, or the hot iron kept on too long, so that the stump becomes subsequently inflamed, the inflammation may extend to the muscles of the hind quarters and lead to gangrene. In other cases the bones of the tail have been known to become necrosed or carious.

To those who claim that in the hands of an experienced person the operation is often painless, we wish to state that one hundred and two well-defined cases of lockjaw were reported in 1891 by the officers of the Royal S. P. C. A., with a certificate in each case from the veterinary surgeon in attendance that the disease had been caused by docking, and we beg to submit the following opinions of veterinary surgeons :

"There is no justification for docking, unless the tail is deformed or diseased."—*Prof. Pritchard, Royal College of Veterinary Surgeons.*

"Docking horses is cruel, barbarous, unnecessary, and discredited by the profession."—*Dr. William L. Zuill, University of Pennsylvania.*

"The operation is one employed to meet the demands of fashion. It is needless, painful, and cruel, causing the animal much suffering, and depriving it of its only means of defence

against flies and insects. In my opinion no language too strong can be employed condemning this cruel operation."—*Dr. Samuel K. Johnson, Chief Surgeon New York Veterinary Hospital.*

"I hope the day may soon arrive when veterinarians will refuse to perform the operation. With them, I believe, rests the solution of the problem whether or not 'docking will remain as it is, a useless, worthless, and inhuman mutilation.'"—*Prof. A. Liautard, M.D., V.M.*

"Those who practice docking do it clandestinely and cannot justify their act. That docking, or the mutilation of the tail, inflicts much pain and suffering cannot be denied. The structures involved—skin, muscles, nerves, blood-vessels, and bones—cannot be lacerated, and then seared with a red-hot iron, without causing intense and often prolonged pain."—*Dr. L. McLean, M. R. C. V. S.*

"Besides the cruelty which is acknowledged to be identical with the operation, there are reasons on the ground of physiology why the tail should be left entire."—*George H. Dadd, "Theory and Practice of Veterinary Medicine and Surgery," p. 395.*

"Such operations as docking, nicking, and ear-cropping of horses must be classed together as not only cruel in themselves (useless and painful operations are cruel), but which render animals less valuable."—*Geo. Fleming, C.B., L.L.D., F.R.C.V.S.*

"To say that the mutilation is nearly painless is an untruth which any veterinary surgeon knows. To say that it is necessary in order to prevent the horse from throwing its tail over the reins and causing kicking and running away, only shows that a poor horseman is talking to you on a subject which he does not understand. I am ashamed when such men claim to belong to our profession, as they are a disgrace to it. During my thirty-five years of practice I have known several deaths of fine horses due to this useless mutilation."—*John W. Gadsden, M. R. C. V. S.*

ONE HUNDRED AND FORTY HORSES were slaughtered in Glasgow during January for use as human food. The carcasses were all exported. The Belgian Government has, however, prohibited the importation of dead horse-meat into that country. Horse-flesh for Belgium must be alive when it arrives in that country and must be inspected by the Belgian veterinary officials.

REPORTS OF CASES.

TUBERCULOSIS OF A COW AND GOAT ON THE SAME PREMISES— WAS IT CONTAGION OR COINCIDENCE?

By G. LEO HAGENBURGER, M.S., D.V.S., Brooklyn, N. Y.

I was called last November to see a cow in a little place near Rockville Centre, L. I. On my arrival I was shown a seven-year-old cow, which had calved three times with the present owner during a period of five years. He stated that she did not act as brightly as usual, and that the milk supply was not as abundant as before; otherwise he had noticed nothing, except when moved, she would breathe very heavily and become easily exhausted when driven a short distance.

Symptoms.—Temperature, 101° ; pulse, weak and intermittent, but became accelerated when the animal was moved; percussion and auscultation of the lungs revealed nothing; except over the cardiac region a large area appeared to be painful on percussion and dull on auscultation. I found a peculiar blowing noise, especially on diastole, moaning occasionally, coughing very little and seldom. Urine light colored, and a sample of milk taken showed on analysis 92 per cent. water, 8 per cent. solids, and very little fat; blueish in color; scant in quantity.

Diagnosis.—Pericarditis, with effusion, and hypertrophy of the heart.

Cause.—Unknown.

Prognosis.—Unfavorable.

Treatment.—Mild stimulants and diuretics, and iodide of potassium; hot applications to the cardiac region. I called two days later and found the animal not much improved. Advised to destroy, but owner refused. Continued same treatment. Animal succumbed the following day.

Post-mortem.—Heart six times the normal size, surrounded by a pericardium milk white in color (looked much like a bushel-basket), covered with tubercles, the size of a pea, with masses as large as a walnut. The mediastinum was also involved, while the endo and pericardium were diseased to such an extent that they represented more the skin of a wild porker, taken from the scapular region, than a pleural membrane. The lungs were clear, with the exception of a few subpleural glands, which were tubercular. The liver, spleen, brain, and other organs were normal, except that the latter showed an anaemic

appearance, while the posterior extremities showed lymphatic exudates. The bushel-basket mass, known as the heart, weighed about 42 to 45 pounds.

The family used the milk from that cow for the last four years, and having a tuberculous member among them, was advised to use goat's milk by their physician for the patient. The animal was purchased, and supplied the necessary nourishing and health-bringing fluid to the above for five months. Three weeks ago the owner called at my office, requesting me to examine the goat, stating that she was breathing heavily, coughing, discharge sanguine in character from the nostrils, and as she failed to eat and drink he feared to use the milk, and therefore consulted me.

Examination.—Both lungs consolidated; temperature elevated, animal in distress, respirations hurried. I gave tuberculin injection, remaining in town that night to superintend the taking of the temperature, etc., and to conduct the autopsy the following morning.

Result of the Injection.—Well-marked case of tuberculosis pulmonalis, with the post-mortem lesions and the subsequent examination of the lungs by the microscope.

Post-mortem.—The lungs of the goat were a mass of tubercles, as well as the liver, showing not only caseous abscesses, but calcified nodules; along with a slight fatty degenerated condition of the cardiac organ.

This gives us another illustration of our government protection practised in our Empire State, and how much home rule we want in order that not only the healthy consumer of milk is afforded proper protection, but the miserable wretch that is already saturated with the bacilli, where as the last resource goat's milk is being administered.

PERIODIC VOMITION DUE TO GASTRIC LESIONS.

BY JAMES A. WAUGH, V.S., Allegheny, Pa.

A large black mare mule belonging to the Q. M. Dept., U. S. A., had been used several years in the Northern territories, and in 1888 was shipped south to New Mexico. She suffered severely from periodic attacks of vomition about every twenty or thirty days, with symptoms simulating those seen in acute indigestion, except gaseous distention. Violent convulsions prostrated this patient at intervals of about forty minutes. She would invariably be attacked in the evening about sunset; would vomit about half a bushel of masticated food and fluids with much frothy

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saliva; would apparently recover in about three hours, but thereafter would neither eat nor drink for several days; then would apparently regain her natural condition.

The post quartermaster suggested that we condemn and dispose of this animal, but I urged that we keep her until a post-mortem would convince us of the cause of the trouble. This mule was a fine looking animal and was frequently taken in exchange for a weary pack-mule, then would suffer these attacks while out on a scouting expedition, and would again be turned in and soon taken out the same way, which was a source of amusement to those who knew her failings; finally she was used as a draft-mule about the post and was idle for some time, but this made no apparent difference in the frequency of these attacks, which ultimately proved fatal.

A post-mortem revealed a normal condition of the oesophagus, although I expected to find a thoracic jabot. We found old and discolored cicatrices in the mucus coats and muscular walls of the stomach with a small pouch or sac, readily admitting the middle finger, and the opening was from before backwards, and all these lesions were confined to the great curvature of the stomach. It is my opinion that these lesions were due to eating parts of wooden wagon beds when deprived of hay and coarse forage while on forced scouting expeditions or long marches. I have seen aged mules suffering with chronic indigestion and gastric derangement due to particles of hard wood penetrating partly through and lodging in the walls of the stomach, resulting in small abscesses. These cases puzzled me until post-mortems revealed the cause of the trouble.

A Tenth Cavalry horse was abandoned on the trail while scouting after hostile Indians, and was afterwards gathered up with other abandoned stock and was brought into the military post where I was on duty. He was turned with other supernumerary horses in the extra mule corral and was grazed with the herd every day. He suffered an attack of some obscure ailment that simulated acute indigestion with choking. Drenches were administered as indicated but were promptly ejected by vomiting. I cast the patient with English hobbles, applied Varnell's mouth speculum and was about to introduce a celluloid probang, when the violent struggles of the animal broke the mouth speculum, and we were forced to release it. Medication was useless except hypodermic injections to relieve suffering. The patient was placed in a box stall, but was unable to eat or drink thereafter, and emitted a very foetid odor and much saliva and mucous

from the mouth and nostrils. Mosquito-bars were used as fly nets on this patient, but notwithstanding this it would be blackened with flies during the day when the other animals were out grazing. Antiseptic lotions were used without avail. The post surgeon occasionally visited the corral and saw this unfortunate patient and recommended the commanding officer to call a board of survey to condemn and destroy this subject, to humanely end its misery, which was done without delay. I deemed it inexpedient to make a post-mortem examination, owing to the excessively hot weather and the disagreeable odor, yet I waited for a more favorable case, which proved the mare mule first mentioned, which accounts for my anxiety to follow the case.

It appears horses and mules occasionally eat each other's manes and tails off, and particles of wood, when deprived of coarse forage or grazing, and some mules seem to acquire a habit of gnawing wood, especially when at leisure.

I saved a very interesting specimen from this mule's diseased stomach and placed it in an antiseptic fluid to prepare it for final preservation, calculating to present it to the museum of the American Veterinary College, but I was called away suddenly to consult with the Cattle Sanitary Commission of New Mexico, and spent twenty-eight days investigating diseases of cattle, and on my return found the specimen ruined by evaporation of the liquids surrounding it.

PUNCTURED WOUND OF THE FOOT.

BY ROBERT ROBB, V.S., Terre Haute, Ind.

During the month of June, 1895, I was called into consultation with Dr. Elliott, of this city, in regard to a mare that had been lame for two months, the result of a nail having been picked up on the street and penetrating between the inner border of sole and frog of the front foot. At the time of my examination the mare was very lame in the near front foot, and during progression the limb was carried off the ground, while in the standing position it was brought backwards with the toe resting on the ground. Around the head of hoof pus had been discharging more or less for three or four weeks, but had somewhat diminished. The parts were swollen and tender to the touch. During the time the mare had been under treatment she maintained good health. At the time the doctor was called in to treat the case, his line of treatment was in accordance with the case, but in spite of all that was done suppuration was the result at the place mentioned. Having informed the owners of my diagnosis, which

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was not very favorable, but made a statement that the animal was no good the way she was and worthless as far as work was concerned, but if they would consent to an operation we would fathom and trace the nail-hole as far as it went and in so doing the chances would be in favor rather than against her, even if she did not make a complete recovery, and a more correct diagnosis could be made. After some hard talking they decided in favor of an operation. On the following day the mare was led out on a bed of straw, hobbled and cast. After the chloroform was administered by the doctor and everything ready the limb was released from the hobble, the foot cut down into proper shape (as it had grown very much since her mishap), a solution of bichlor. hydrarg., 1 to 1000, was used in washing the foot thoroughly before the operation; a ligature was then applied below the fetlock. Then taking the foot we cut down, removing part of the horny frog and sole, making the opening somewhat circular in form. This being done the direction of the nail-hole could be seen distinctly passing obliquely downwards and somewhat outwards. This was followed by removing the same area of sensitive frog and sole, thus bringing into view the coffin bone and flexor perforans tendon, to the extent of the opening; the sole of the coffin bone was as black as tar. How far this extended it is impossible for me to say, but this was removed by curetting. The parts were kept washed thoroughly during the entire operation with a solution of bichlor. hydrarg. The dressing consisted of Sal.-Lister and absorbent cotton, with plenty of pressure on the sole from the bandages that were applied. The ligature was removed from below the fetlock, after which we had some haemorrhage, which looked a little discouraging, but it soon subsided. The hobbles were removed and the animal allowed to rest in the recumbent position, after which she rose none the worse for the operation. Not having seen the mare afterwards, although I kept track of her through the doctor and owners, a fungus growth appeared two weeks after the operation, which was removed by argenti nit. In four weeks after this she was removed to pasture and allowed to run up to the last of September, after which she was brought to the city with as perfect a foot and as sound as before her misfortune.

LACERATION AND PUNCTURE OF THORAX IN A DOG.

BY G. LEO HAGENBURGER, M.S., D.V.S., Brooklyn, N. Y.

An Italian greyhound was brought to my office on April 2. Owner told me that she jumped on an iron picket fence and lace-

rated the chest the night previous. An examination showed a cut between the second and last ribs to such an extent that a portion of the left lung protruded. The animal presented a pitiful appearance. I at once put the animal under ether, and placing it on the table disinfected, washed, and, handling the lung with a clean steamed towel, succeeded in putting ten sutures in the pleura and costal muscles, afterwards closing the skin with twelve more. An iodoform dressing, with collodion and a bandage, were then placed over the whole side of the chest and abdomen. The animal made an elegant recovery, without a drop of pus or discharge, in ten days, but refused food for five days. Temperature 105° , lasting four days after the operation. Slight pleuritic symptoms developed, and were treated in the ordinary way, and iodide of potassium administered after the febrile symptoms had subsided.

Since that the owner tells me that his "Isabella," as he calls her, has lost all pleasure and desire for jumping fences, accompanying her master on his usual morning ride in the saddle; a sport which he was unable to prevent her from indulging in except through the above described accident.

A NEEDLE IN THE TONGUE OF A HORSE.

BY W. J. MARTIN, V.S., Kankakee, Ills.

Some months ago, being called to an adjoining village to treat a severe case of distemper, and after prescribing for the same, I was requested by a neighbor of my client's to go and see a mare of his that for several days had not eaten very well, and for the last day had entirely refused all food. The man said that he was afraid that she also had taken the distemper. Upon my arrival at his farm, which was at about dusk, the patient, a fine bay mare, aged about seven years, was led out into the yard for my inspection. The animal was a picture of perfect health, and I was totally unable to detect any signs of influenza or any other symptoms of disease. The thyroid and lymphatic glands showed no signs of tumefaction, and the stethoscope revealed not the slightest abnormal sound in the trachea nor bronchi. The thermometer showed her temperature to be normal; no cough was present; no saliva dribbled from the mouth; eyes bright; ears erect and alert to every sound, yet she absolutely refused to touch some fresh oats which I offered to her. There was a case, I thought, that would puzzle even the famed Oracle of Delphi to unravel. After thinking the matter over for a few minutes I thought perhaps that some foreign body had become

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lodged between the molar teeth. These were immediately examined carefully, but without result. As I was withdrawing my hand in despair from her mouth for the third and last time, the back of it was pricked by a sharp point projecting above the dorsal surface of the tongue—this foreign body proved on extraction to be a small darning needle—it was driven entirely through the tongue, from below upward and projected backward toward the trachea. After removal of the needle the mare began to feed as unconcernedly as though nothing had ever happened.

It seems that a cigar box containing wax thread, needles, awls, etc., for repairing harness, had been kept on a shelf over the oat-bin and had been accidentally overturned into the oats and in this manner the needle had found its way into the mare's feed box.

What seems also strange about this case was the total absence of all inflammation of the tongue, the refusal to eat being due to the mechanical pricking of the roof of the mouth by the point of the needle which projected above the surface of the tongue.

PHARYNGEAL CHOKES.

BY JOHN MINCHIN, V.S., GOSHEN, N. Y.

March 7, was called to see a bay horse, 15-2, 9 years old, suffering from enlargement of head and face, gums, etc. A few days before was driven about four or five miles, apparently in good health; tied under shed, where he stood all day—which was very cold. Next day appeared a little dull, and day after, with head drooping, and not caring much for feed. The second day his head was discovered to be swollen, when I was sent for.

On my arrival found the head from the ears to the lips very much swelled—especially the lips—which could hardly be moved, and in many places on the cheeks would pit on pressure. There was a slight discharge from the left nostril that on the fourth day was very offensive. After a good injection of bi-chloride (1-100) up both nostrils, and antiseptic and cold lotion to face, with a strong gargle of chlo. potash, I left, to call again in three days; leaving directions, etc.

On my arrival found the horse in better spirits, swelling going down, but mastication very troublesome. His eyes more bright, and his general appearance more satisfactory. On the owner going to see him next morning, to his surprise found the horse dead.

Post-mortem.—All the organs were normal, save the upper third of gullet, which was very much inflamed, and at the conjunction of the pharynx was almost constricted, where was found a large feed-ball, semi-masticated and dry. On removal of this mass, the surrounding tissues were highly impregnated with pus of a very offensive odor. There was found a slight necrosis of the turbinated bones, and also of the left nasal bone, which extended down the schreiderian membrane, which showed many lesions. Taking the length of time, say, five days from the discovery of the trouble, and the enormous enlargement of the head presented, the writer would be under many obligations to you, Mr. Editor, for your learned opinion of this case,—a case your correspondent in all his practice never saw the like of before,—which we hope to find noted in the next issue of the AMERICAN VETERINARY REVIEW.

RUPTURE OF THE HEART.

By WM. V. LUSK, Veterinary Surgeon 2d U. S. Cavalry, Fort Wingate, N. M.

Subject, an old mule, apparently in good health, very fat, and used as a pack mule in the U. S. Army. This animal was taken out one morning for its usual exercise, and after going about four miles dropped over without previous warning and died almost instantly. Post-mortem examination revealed a rupture about one inch in length in the upper portion of the right ventricle. The pericardium had also ruptured and a large quantity of blood was found in the thoracic cavity. Aside from the rupture the heart appeared in a perfectly normal condition.

The cause of the rupture is a mystery to me. The animal had not been driven faster than a walk and had been subjected to no violence whatever. General weakening of the muscular tissue, as the result of old age, was probably the cause.

GASTRITIS COMPLICATED WITH LAMINITIS FROM EATING PRUNUS VIRGINIANA.

By W. F. DERR, V.S., Wooster, O.

On Feb. 8th, 1896, I was called to see some horses that were being prepared for New York market, said to have taken poison of some kind.

I proceeded to the place as soon as possible and found two horses of about 1900 pounds weight, ready for shipping, and suffering from gastritis complicated with a very severe form of laminitis.

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No. 1. Grey horse was down ; pulse 90 ; temperature $105\frac{3}{4}^{\circ}$; respirations 26 ; pains in abdomen. On making him rise he brought all feet under centre of body, but could not stand, and fell down again.

No. 2. Brown horse, very fat. Weight about a ton, very stiff and sore, in fact so sore that it was impossible to move him, even by persuading him with a whip. Pulse 92, angry, temperature $105\frac{1}{2}^{\circ}$; respirations 36 ; abdominal pains ; evinced pain whenever he was touched. Bowels constipated, as well as arrest of the urinary secretions.

History.—Owner said he was out of straw and on the day before had hauled some sawdust into the barn for bedding, composed principally of *Prunus Virginiana*, which contained tannin, gallic acid, resin and other vegetable principles, of which they ate pretty freely, producing gastric irritation and acute laminitis.

Treatment.—One quart of raw linseed oil to each horse, with anodynes, febrifuges and demulcents, brought all the organs involved to their normal condition in about a week.

CHOREA CURED IN A DOG.

BY FRANCIS ABELE, V.S., Quincy, Mass.

The following is an account of a case of chorea in a dog which was completely cured. As it was the first case of short standing I was ever called to, I would like to have it published, hoping some one else may recall a similar case and give his treatment.

Was called to a twelve-month old St. Bernard pup. Owner wished its sufferings ended. Wife wanted it treated. Wife prevailed. Dog would rise and fall, stagger and struggle to rise again. When assisted its spasmodic contractions would cause it to fall, sometimes over steps, boxes, my legs, and in fact anything within reach of its chain. It could not bark, but made a spasmodic "yip!" "yip!" The head would twitch and the fore leg would have excessive "knee action." It was difficult to hold him, not from his trying to get away, but his spasmodic tumbling.

Gave him about six grains of zinc sulphate, dissolved in about six ounces of tepid water. Later gave syrup buckthorn, full ounce, together with one of six powders composed of chloral hydrate, ten grains, and the same of potass. bromide. Left directions for other powders to be given four hours apart in warm water. When I called again, dog could bark a litt

spasms less noticeable. As powders were gone, had nux powdered added to the new six. When these were gone no signs of the chorea remained. Had restricted dog to well soaked bread in milk and water, that there might no irritant enter the stomach, then ordered bones free from meat, beside his bread and milk, to which was added syrup triple phosphate. He made a perfect recovery.

EXTRACTS FROM EXCHANGES.

FRENCH REVIEW.

SUPPURATIVE PHLEBITIS. — DEEP ABSCESS OF THE SHOULDER.—Mr. E. Jombert relates this case, which occurred in his practice on a three-year-old stallion which was suffering with an attack of generalized distemper. He had first abscesses in the sub-maxillary space, then on both thighs, and presented besides all the indications of a severe attack of bronchitis. Among the indications of treatment, the horse had been bled in the jugular. The patient did well as far as his attack of distemper went, but some four weeks after the wound of the jugular had not yet healed; and, besides, was very lame on the right fore leg, with a large swelling towards its posterior border. This proved to be a very deep and large abscess from which five quarts of pus were subsequently allowed to escape. The constant discharge which prevented the closing of the jugular wound was due to inflammation of the vein (phlebitis). This was treated by the application of a large blister, which was repeated daily, with the alternative application of warm poultices of flaxseed to avoid a slough of the skin. This treatment of the phlebitis proved very satisfactory in a few days, the discharge subsiding, the indurated cord of the vein gradually disappeared and the parts healed without leaving any blemishes.—(*Rec. de Med. Vet.*)

RHEUMATISMAL SYNOVITIS AND ENDOCARDITIS — [Mr. Filliatre].—The object of this record is to show that the existence of synovitis and of endocarditis are not rare, as might be indicated by the poverty of veterinary publications on this subject. An animal lame on the left hind leg with an acute synovitis of the great sesamoid sheath, was brought to the author, who, considering it of rheumatic nature, carefully auscultated the heart and detected a mitral sound well marked towards the base of the heart. The treatment prescribed consisted in the daily administration of one of the following powders:

R. Sulphate of quinine, 25 grammes,
Salicylate of soda, 10 " "
Iodide of potass., 15 " "

M. In pulvis No. v. Give one every day.

With this a blister was applied on the diseased synovial sheath. Recovery was rapid.

Some three months later, the animal was again laid up with difficulty in breathing, after a short work. After ten minutes of trotting he showed the following symptoms: Well marked short breathing, violent cardial strokes, muscular tremblings at the elbow and at the stifle. At the auscultation, the mitral sound exists yet, but not so loud as at the first examination; the pulse is small and irregular. The animal was destroyed.—(It is to be regretted that the post-mortem is not recorded).—*R. de M.V.*

JAUNDICE IN A DOG.—In the *Bulletin of Veterinary Dosimetry* the following case is recorded: A nine-year-old spaniel dog, excellent for shooting, was suffering with jaundice; the conjunctiva, the gums were of the characteristic color, the pulse weak, no appetite, great dullness, etc. With little hope of saving him Mr. Viand prescribed 2 granules of hyoscyamine, 1 of brucine and 1 of digitaline, the four to be taken together and repeated every two hours. Black coffee with bouillon of carrots was also administered. A large mustard poultice was placed under the abdomen the following day. 48 hours later slight improvement; the dog is more lively and eats some. This improvement continued until the seventh or eighth day, when all symptoms having subsided, the treatment was stopped and the animal returned to his sport.

FACIAL PARALYSIS IN A DOG DUE TO TUBERCULOUS OTITIS.—In the *Review of Toulouse* Mr. Montfallet reports an interesting case of a pointer dog which was considered as a suspect of rabies. The symptoms which he presented, viz., appearance of being in pain, excessive loss of flesh, marked emaciation of the muscles of the left temporo-maxillary region; dropping of the lower lip, slightly deviated to the left, while the upper lip at the nose is drawn on the right; ears drooping, strabismus of the left eye; difficult mastication and deglutition; abundant flow of saliva and collections of food in the mouth; no alteration in the sound of the voice; all pointed to a different diagnosis, that of facial paralysis. On further inquiry it was learned that for some time back the poor animal had been suffering with auricular catarrh, which by examination of the discharge showed a large number of streptococcus pyogynes. The

treatment of this affection having failed, the animal was destroyed. At the post-mortem, the splanchnic organs, the serous membranes, the lymphatic ganglions of the abdomen, the lungs were full of tuberculous deposits. Some granular deposits are found on the meninges. The tuberous portion of the temporal bone hollowed was filled with serosity. The facial seemed atrophied. Examination of the granulations found in the middle ear and its surroundings proved them to be of tuberculous nature. It was the pressure of those granulations upon the facial nerve which had given rise to all the paralytic symptoms.

OPENING OF THE RECTUM IN THE VAGINA OF A SOW.—This peculiar abnormality, recorded by Mr. Ch. Morot in the *Journal of Lyon*, refers to an animal which was killed at the age of fifteen months. She weighed 90 kilos (180 pounds). She had no anus—but in its place, under the tail, there was a vertical cutaneous slit, deep and 3 or four millimetres wide and about 2 centimetres long. The lower wall of the rectum presented behind a wide round opening, the termination of the digestive canal and whose circumference arrived to the superior commissure of the vulva. The posterior end of the rectum was bent downwards and opened directly on the superior wall of the vagina by the opening above mentioned.

The animal did not seem to have suffered from its infirmity—she was fat and in good health.

ENGLISH REVIEW.

OBSTETRIC CASES [By *O. Trevor Williams*].—1st. An old mare, that has reared several foals, is served twice, and after proper time was thought in foal by the owner. One day, it was found that when she laid down a white milky fluid ran in a stream from the vagina; when standing the flow would stop, to return as soon as she laid down. Examination of the vagina and uterus showed that the os was dilated wide enough to insert two fingers. Thorough washing with sublimate solution with stimulants and tonics relieved the animal in a week. The same author relates a case of hydramnios in a cow in which he removed (without exaggeration) some twenty gallons of fluid. As after the escape of this mass of fluid, the cow had difficulty to deliver, another examination showed that the foetus was affected with congenital ascites. Embryotomy was performed and the heifer recovered splendidly.—(*Veterinary Record*).

EFFECT OF MORPHIA ON A BEAR [By *Mr. W. Kirk*].—

This gentleman being called to apply a nose ring on a bear recently bought for a menagerie and which was of very ugly disposition, administered seven grains of morphine hydrochl. mixed with half a pound of honey—the whole mixture being taken with delight by the animal. “The effect was rapid and the beast gave vent to the most terrible forest yells. The sclerotic coat of the eyes became intensely injected—the pupil contracted. For a minute or so he banged his head against the iron bar with great force. This stage of excitement soon passed off.” Yet the sleep was not sufficiently sound to make it safe to operate and ether and chloroform were administered. The animal being well narcotized, the operation was performed without trouble. Mr. K. concludes: “There is no telling how much morphia a full grown bear could take, but judging from the amount given and the ether and chloroform inhaled, I should imagine had I given three grains more there would have been no necessity for the anaesthetic.”—(*Ibid.*)

PARASITIC ENTERITIS AND EMBOLISM IN THE HORSE [*By Mr. E. R. Gibson*].—Remarking that while the intestinal canal of horses is subject to invasion by a variety of parasites; that their presence there is not as a rule attended by fatal results; and that some parasites do produce disease and ultimate death of their host, the author reports three cases in which at post-mortem *strongylus armatus* and *tetracanthus* were found with the lesions which they leave in the intestines and their arteries—where they were found in quantity. Though the smallest of the nematodes, these parasites are the most difficult to dislodge, the treatment against them is of no avail and yet their presence in number is always attended with serious results.—(*Ibid.*)

VENTRAL HERNIA [*By Mr. J. A. Thompson*].—This case shows the possibility of interference in abdominal surgery. A mare having received a severe kick on the right flank, was suffering afterward with a ventral hernia, whose opening measured about eight inches in length, with the result that a mass of intestines was protruding, under the skin, and made a swelling about the size of two ordinary bed pillows. After careful cleansing, disinfection with carbolic acid, the skin was incised, the wounds sponged out of the serum underneath, the uninjured intestines were returned in place, the muscles brought together with silk sutures, the skin sewed up with strong hempen cord. A pad of cotton saturated with carbolic acid and a tight bandage applied over the parts. After a pretty severe illness of about a week, in which the temperature one day reached 108° F., the

mare got well. The silk sutures gave a little trouble, which disappeared as they sloughed away.—(*Ibid.*)

SEPTICÆMIA AFTER CASTRATION IN A CAT [By Mr. W. R. Clarke].—Ten days after being castrated a young Persian cat was showing symptoms of severe illness, which carried it off two days later. The cat was very weak, constantly vomiting and presented at the place of operation a surface where the hairs glued together by the discharge formed a solid obstacle to all escape of pus. The skin underneath was gangrenous, the abdominal muscles undermined with pus and the tissues of the abdominal wall, especially round the inguinal rings, were granulating freely. The cat died with septicæmia. All this trouble could have been avoided had the *long hairs* of this Persian cat been clipped short, as they must be in long coated animals.—(*Ibid.*)

ANCHYLOSIS OF THE JAWS IN A DOG [By Mr. J. A. Nunn].—An 8 months bulldog was unable to open his mouth properly, had difficulty in eating and was unable to defend himself; he could, however, drink. He was anaesthetized with ether and chloroform and by means of two small straps passed around the upper and lower jaws behind the canine, the mouth was forcibly opened with a loud snap, like the crack of a hunting whip. Massage of the joints, opening the mouth full three or four times a day, gnawing on large bones to make the dog move his jaws, were followed by comparatively perfect recovery, the dog was able to feed and to defend himself, though he showed unwillingness to open his mouth to its full extent himself.—(*Veterinary Journal.*)

CHOKING IN THE HORSE [By Mr. E. Plant].—The case recorded by the author is interesting only from the fact that the introduction and manipulations were carried out with the animal standing—held merely with a twitch and having his mouth open with a balling iron. The principal difficulty was at the moment when pressure was used to dislodge the foreign body, as then the animal struggled much; however, the operation proved successful after the second introduction of the instrument and the animal got entirely well after a few days of careful diet.—(*Ibid.*)

VOMITION IN A HORSE—ITS CAUSE [By Mr. E. N. Jarvis].—In the *Journal of Comparative Pathology and Therapeutics* is found an interesting detailed case of vomiting in the horse. The animal between the 25th of January and the 15th of July was attacked at various intervals with vomiting, which the

author, in the only time he had opportunity to see the act, describes as follows: "The animal drew up one fore leg, flexing the knee and holding it rigid; he then gave a peculiar low squeal, caused by the suction in of air, which I could see travelling the oesophagus; he then made a spasmodic effort with his abdominal muscles, and, lowering and stretching out his neck, forcibly ejected food, mainly through his nostrils, but a little by his mouth, and completed the operation by a short cough. The food was followed by a frothy mucous discharge after the first few emetic efforts, which were made every minute or two, with gradually increasing intervals between. The movements were so quickly performed that I only followed the whole by closely watching nearly a dozen attacks; they lasted in all about 45 minutes. The oesophagus remained for some time after this in a swollen condition, giving a thicker appearance to the lower part of the neck, and continuous spasmodic contractions passing up and down the gullet were prolonged for about half an hour after the vomition had ceased. He also evinced pain on pressure in a forward direction from the posterior border of the ribs on both sides." The animal was ultimately destroyed and a thoracic jabot was found, immediately in front of the diaphragm; being separated from the stomach by a simple contraction near the cardia. The walls of this dilatation were composed of the mucous and pleural coats of the cesophagus; the slit through the muscular coat measured 5 inches; the sac had a circumference of 12 inches at its narrowest part, it contained 1½ pounds of food in partly fermented state.

GERMAN REVIEW.

REMOVAL OF CALCULI FROM THE DOG'S BLADDER BY SECTIO ALTA. *Translated for the REVIEW by Frank H. Miller, V. S., of Berlin. [Maltzeff, St. Petersburg Arch. for Veterinary Science, Vol. VII.]*—The successful removal of calculi by way of the urethra by perineal section is difficult.

In human surgery their removal by sectio alta is quite satisfactory, but up to the present it has not been employed in veterinary practice. M— has applied it in canine practice with the result of the loss of but one case in a series of 12 operations. This exception was probably due to direct injury to the intestines, as during the operation the animal was very restless. Recovery, time averaged 18 days.

The mode of operation was to place the animal upon the

back, and after evacuation of the bladder by the catheter, the same was flushed out with boric acid solution (2 p.c.). The seat of operation was sterilized, and by pushing the penis in its prepuce toward the left side, an incision varying from 4 to 7 c.m. was laid from the symphysis pubis forward in the linea alba, extending downward to the peritoneum, which was then carefully opened. The bladder was located with the sterilized fingers, and by means of forceps was raised and fixed in the abdominal opening, when a sufficiently large opening was laid upon its ventral aspect to expose the calculi, which was thus easily removed. The haemorrhage was slight. The edges of the cystic wall were now brought into apposition by continuous suture of carbolized silk, the wound cleansed by 2 or 3 per cent. carbolic solution, powdered with iodoform tannin, and the organ replaced. The peritoneal wound was closed by interrupted sutures.

Bandages were applied in two cases only, as they served to make the patients restless. The healing of the bladder wounds followed per *prima*. No use was made of general anaesthetics, the application of which would undoubtedly have simplified the operations.

NOTE.—In view of the fact that perhaps with the single exception of distemper and its sequels, more dogs die yearly from disease either directly or indirectly due to urinary calculi than from any other one internal disease, this report of cases by Maltzeff is of unusual importance. There are but few diseases more interesting among our patients, and very few so poorly understood.—F. H. M.

CREOLINE POISONING IN HORSES. [*Translated for the REVIEW by Frank H. Miller, V.S., Berlin.*]—A creoline wash was ordered for two horses suffering from phthiriasis in the 11th Battery, 24th Artillery Regiment. While the former use of 4 per cent. creoline wash had not always proved successful in removing the parasites, a 6 per cent. mixture was used. Pier-
son's creoline in the original bottle was made use of, and to the amount used was added 600 grams which remained over from a 5 litre bottle opened 8 weeks before. This, however, did not appear to differ in any visible detail from the fresh drug. The mixture with water which was whiter than usual was attributed to the concentration.

Both horses upon which it was used appeared in perfect health before the bath and without any visible skin defect. The neck, mane, croup, and extremities were washed and the body only moistened and brushed smooth. The horses remained perfectly quiet during the application, but the attendants complained of burning sensations of the hands. After the animals had been returned to their places, the following symptoms were

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noted: One horse threw himself down at once, lay upon the right side and gave the impression of a very sick animal. The eyes were staring, anxious, conjunctiva deeply injected, pupils dilated, nostrils expanded, mouth opened wide, heart's action tumultuous, both heart sounds obscured in an indistinct murmur. The pulse was imperceptible; arteries hard and full; respiration superficial, 96 per minute; continuous muscular tremor of high degree; tono-clonic spasms of muscles of the extremities. The animal lost the power to raise himself. Appetite entirely suppressed.

Treatment.—Washed away the toxic agent so far as possible and made continuous application of water to the surface of the body. Internally, brandy, camphor and digitalis, subcutaneous injection of camphor and etheris sulphurici in proportion 1.5.

In half an hour the animal became more quiet. The danger of cardiac and respiratory paralysis quickly passed away. The pulse could be counted at 106 per minute. In 1½ hours the animal was by assistance able to rise and stand with support; pulse 48, respiration 20, muscular tremor diminished, the countenance became brighter, but still anxious. After 3½ hours from the time of washing the alarming symptoms had all subsided. Upon the following day the patient was bright, pulse and respiration normal; conjunctival mucous membrane, sealed in color; muscular tremor absent. The extremities were swollen and in common with the skin upon the sternum and places which had been washed, wrinkled and like parchment in feel, also covered with a tenacious yellowish exudate. The urine was brown-red in color. Fæces small-balled, hard and of brownish-green hue, and passed with some difficulty, leaving also a distinct odor of creoline.

Upon the second day the urine was clear, the limbs less swollen and covered with an epithelial desquamation. The hair began to shed. Four days from time of the application the patient had entirely recovered.

The second horse also threw himself down, lay a few moments quite still, and tried to rise. Assumed the sitting posture, which he retained for about 5 minutes, after which he arose without assistance, going to his crib and feeding. The conjunctival membranes were also seal-red, pulse 96 per minute, respiration labored, muscular tremor well defined; the movements were uncertain and particularly those of the posterior limbs, while those of the anterior were ataxic in character. Although the skin of this animal was much the finer of

the two, the symptoms were all milder and disappeared entirely after an hour. The urine was upon the following day of dark color, faeces similar to first case. The exudation from the cutaneous vessels was absent, and notwithstanding the evidently milder action upon the skin, the lesions healed much slower than in the former case. The particular reason for this poisoning can only lie in a too concentrated mixture. There was no acetic acid used in washing and the rubbing was not excessive.

—*Rosartz Journal.*

NOTE.—These cases so carefully noted are of importance, and from several points of consideration. The prevailing opinion among practicing surgeons that creoline is a safe antiseptic has led to a very careless application of the same. While it is comparatively safe as compared with agents like carbolic acid, still its properties and possible impurities should never be lost sight of. There are several questions in the above reports, as the propriety of its application in such form, in such case? Purity of drug? Does it undergo change on exposure to the air? Idiosyncrasy? Treatment, etc.?

F. H. M.

AMERICAN REVIEW.

EMBOLISM OF THE AORTA.—Dr. Noack, of Reading, Pa., reports an interesting case of this nature occurring in a mare, in the April *Journal of Comp. Med.*, the location of the embolus being in the posterior aorta, just back of the renal arteries and extending into the femorals, and causing enormous enlargement of the heart (it weighing $23\frac{1}{2}$ pounds), the cardiac muscles being especially strong, along with enlargement of the liver, spleen, and kidneys. The following interesting symptoms were displayed by the animal just before being destroyed for the autopsy: The owner gave the history that whenever the mare was driven she would sweat profusely, walk lame, and then begin to stagger. A physical examination of the patient standing showed the mucous membranes of the eyes and nose very pale, beating of the heart feeble, and regurgitation of the blood into the heart could be heard. The heart sounds were irregular and scarcely audible; pulse feeble, but could be distinctly felt. The horse was then hitched to a buggy to see the symptoms when driven. She trotted the first four blocks all right, then suddenly the tail got stiff and twisted in a peculiar manner; she ceased trotting, and walked as though the muscles of her hind legs were in cramps. These symptoms disappeared in a few minutes, beginning to walk again, sweating profusely, but the hind part staggered so much that she was halted. Breathing was very difficult and accelerated; head, fore, and middle part of the body being covered with perspiration; not a drop of sweat on the hind part, which was evidence

that the circulation in the posterior portion was considerably interrupted, thus leading the veterinarian to a correct diagnosis of heart failure and embolism of the posterior aorta.

TUBERCULIN AS AN ANTIPYRETIC.—In testing a suspected cow, whose mother was extensively diseased with tuberculosis during the period of gestation, the calf developing a chronic cough after having arrived at adult life, and in consequence being believed to have the same disease as her mother, Dr. Lusson, of Ardmore, Pa. (as stated in *Jour. Comp. Med.* for April), injected tuberculin on two occasions, when the temperature was about 102°, and in each instance there was a decrease of about one degree. Upon post-mortem she was found to be afflicted with traumatic bronchitis, due to finely masticated hay. He, therefore, concludes that tuberculin will reduce fever where not induced by tuberculous infection, and that in respiratory affections it possesses a sedative effect, as the subject was much easier for several days after each injection.

A VERY LARGE URETHRAL CALCULUS.—Dr. L. A. Greiner, of Indianapolis, Indiana, in the May *Journal*, reports a recent operation for the removal of an oxalate of lime calculus from the urethra of a horse, located about 2½ inches below the anus, which was very firmly imbedded in the mucous membrane, giving rise to great emaciation, difficulty in urination, straining, and paddling of the hind legs. When removed the calculus was found to be irregularly egg-shaped, and of the following measurements: weight, 6 ounces and 2 drachms; longest diameter, 3¾ inches; shortest diameter, 2½ inches; longest circumference, 10 inches; shortest, 7½ inches.

INOCULATING AGAINST TEXAS FEVER.

INTERESTING EXPERIMENTS TO BE CONDUCTED IN VIRGINIA TO TEST PREVENTIVE VACCINATION.

[From the Richmond, Va., *Star*, May 11th.]

Dr. Cooper Curtice, who was stationed here in March to cooperate with Dr. E. P. Niles, veterinarian of the State Board of Control, in carrying into effect the quarantine laws enacted by the last Legislature and establishing the quarantine line located by the proclamation of Governor O'Ferrall, has returned to Manchester to continue field experiments upon eighteen head of young stock from the pathological laboratories of the Department of Agriculture at Washington.

As stated in *The Star* of April 20th, these experiments were to be undertaken in Southern Georgia, but through the efforts of Dr. J. M. McBugle, secretary of the Board of Control, Dr. Niles and Dr. Harbaugh, the Secretary of Agriculture diverted them to this place.

Arrangements have been made with Major Joseph Walker for the use of his sheds for the experiment. Mr. Walker foreseeing the importance to the cattle industry of the successful outcome of the experiment, has placed every facility at the command of the Doctor.

It is well known, and has been a long accepted and sadly regretted fact, that cattle cannot with safety be brought from the mountains from northern or neighboring counties in summer time, because they are nearly sure to die with the disease variously called bloody-murrain, red-water, distemper, tick-fever, Texas-fever, splenic-fever, etc.

Fourteen of the cattle have been inoculated and have gone through a mild attack of the disease at Washington. These are brought here to learn if they are not proof against further attacks. The other four have not been inoculated, and may perhaps die.

These cattle are all perfectly healthy and have been since last fall, and have been under daily observation. They will be pastured upon the commons and treated exactly as all other cattle are in this region in order to subject them to precisely the same conditions that every cattle owner has to subject his new purchases. By this method only can the virtues of vaccination as a preventive against murrain be proven. The success of the vaccination experiments will enable cattle owners of the South to purchase vaccinated pure bred stock from any place to improve their herds with immunity from the disease.

The sheds to the southeast of the barn have been fitted with troughs, partitions, schute and stanchion and small office room and are now ready for the cattle which are daily expected.

In connection with these experiments, Dr. Curtice invites the assistance of dairymen in his studies of learning how to exterminate ticks most easily and cheaply. It is absolutely certain that ticks are a cause of the bloody murrain in cattle, therefore it is most necessary to remove them. Cattle which have carried ticks from calfhood never die, but adult cattle which never have had them die when first infested. The Doctor will visit neighboring farms and any aid in his task will be acceptable. He believes that with suitable measures taken to remove ticks, or to

separate cattle, in two or three years at the outside, Chesterfield county will be as free from murrain as any mountain county and may be placed north of the quarantine line, again opening up its summer trade with Richmond.

The disease, bloody murrain, has been of late years the chief drawback to the improvement of cattle and the cattle trade of the South. Since its migration northward from Carolina about 1,750,000 of cattle have perished and many men ruined by the loss of entire herds. Legislation has since then been enacted and re-enacted by the State Legislature and not until last fall has there been a law which was competent to restrict the spread of the disease in summer time. Should Virginia eradicate the ticks from her southern counties traffic in cattle can be unrestricted through fear of disease and the quarantine line placed at the southern State boundary.

One clause in the present law for the protection of domestic animals should not be overlooked. This law permits owners to raise ticks on their cattle should they so desire, but intends to prevent their distributing them where other cattle may become infected by them.

REVIEW OF BIOLOGICAL SCIENCES.

ACTION OF SOME ELECTRICAL MODALITIES UPON BACTERIAN TOXINES.

By MM. D'ASSONVAL AND CHARRIN.

After studying the action of electricity upon microbes, the authors have tried to find what was the action of this agent upon the soluble products or toxines.

They have used the current, passing always in the same direction and made either continued or intermittent. The electrolytical action of the continued current has been tried upon two toxines: the diphtheric and the pyocyanic. After the experiment, the temperature of the liquid was scarcely above the surrounding temperature. MM. Apostoli and Laquerrière have claimed microbicide only the positive pole and have attributed this action to the chemical products made free at the contact of the positive pole; raising oxygen, chlorides, acids, etc. These suppositions were not sustained by experiments; toxine, in connection with the negative pole, has also been attenuated, as the injections made in animals proved it.

They have made analogous experiments with the continued

intermittent current with high degree, and made the following conclusions :

1st. The continued or intermittent current at high degree attenuates the toxines at the positive as well as at the negative pole. It is then not a polar action. 2d. The attenuating action is not in proportion to the quantity of electricity which has passed through the toxine.

In a second note the authors record experiments which prove that toxines attenuated by electricity become vaccinating. They are again brought to the conclusion that the attenuation of toxines is not in proportion with the *quantity* of electricity which passes through them, but its *quality*. Currents with high frequency have completely destroyed the toxicity of the diphtheric toxine and that in the absence of all chemical action, simply by molecular concussion. This antitoxic action of currents with high frequency has a very great importance to the clinical point of view. These currents being without action upon the sensibility and the motricity, as proved by Mr. d' Assonval, it is to be hoped that they may be rendered sufficiently powerful to destroy or attenuate the toxine in the organism itself.

For a third note, they record facts which demonstrate that electrified toxines increase the resistance of animals.

In electrifying with currents at high frequency, a culture of pyocyanic bacillus they have observed an attenuation of the chromogeneous function. This attenuation of that function seems due to the modification of the bouillon and not of the bacillus itself.—*Soc. Biol.*

EFFECTS OF THE DIRECT REFLEX AND CENTRAL EXCITATION OF THE MESENTERIC VASO-MOTOR NERVES.

BY MM. L. HALLION AND F. FRANCK.

The authors have studied the action of the nervous system upon the intestinal circulation, with a volumetric apparatus, with the following results :

The mesenteric vaso-constrictors pass from the spinal cord in the sympathetic chain by the thoracic communicating threads of the 5th dorsal.

The excitation of these threads produces an intestinal vaso-constriction, which is at its maximum, at the point of emergency of the splanchnic nerves and upon the trail of the cords which connect the afferent threads.

There also exist mesenteric vaso-dilatateurs associated to

vaso-constrictors in the 11th, 12th, 13th dorsal communicating threads, 1st and 2d lumbars.

Pneumogastric nerves excited in their peripheric end below the diaphragm, produce vaso-constrictors by a complex mechanism.

The excitation of the nerves of general sensibility stimulates the vaso-constriction of the small intestine and the vaso-dilatation of the colon and at the same time the contraction of the spleen and of the kidneys. The excitation of most of the threads afferent to the pneumogastric produces on the contrary reflex intestinal and renal vaso-dilatation, a double congestion, whose clinical manifestation is found in the abdominal painful affections.—(*Ibid.*)

INOCULATION OF THE TUBERCULOSIS OF GALLINACEOUS TO MAMMALIA.

By MM. CADIOT, GILBERT AND ROGERS.

The researches of these authors establish that the tuberculosis of gallinaceous is easily inoculated to rabbits, that it takes with difficulty in guinea-pigs, but after several passages in mammalia, may become very active for this last animal and stimulate in him, like the human virus, the development of visceral granulations ; losing at the same time, its novice action against gallinaceous. By its passages in mammalia, aviary virus has lost its action upon chickens and has become pathogenous for dogs ; an intravenous inoculation has produced in this animal the development of small pulmonary tubercles.

These facts seem to prove that they are two varieties or two breeds of a same species and not two different species.—(*Ibid.*)

ACCIDENTS PRODUCED BY ASCARIDS.

By M. V. CHAUSON.

The accidents produced by ascarids are : 1st, gastro-intestinal disorders ; 2d, nervous accidents called reflex or sympathetic ; 3d, general febrile accidents. The facts observed and the conclusions drawn from experiment show that ascarids may act upon the organism, not only as foreign bodies, but in producing a true empoisonnement.

Several authors mention the apparition, after the manipulation or dissection of ascarids, of cephalalgy, prurit at the head and neck, eruption of vesicles on the skin, conjunctivitis, chemosis, coryza, etc.

The author having injected, in the connective tissue of several

animals, liquid prepared with the living ascarids of horses and swine, principally the citrine liquid running from the sections of worms cut in small pieces, has obtained consecutive accidents followed by rapid death in the guinea pig.

The rapid apparition of these accidents and their immediate intensity must be attributed to a chemical empoisonnement and not to a microbian infection.—(*Ibid.*)

THERAPEUTICAL RECORDS.

Compiled by W. V. BIESER, D.V.S., New York City.

SEAT WORMS IN DOGS.—℞ Napthalini, gr. xv-xx; Ol. Olivae, 3 i-ij. Mix. Sig. Rectal injection.

SCABIES (Nouveaux).—℞ Petrolei, cerae albae, 3 iv; spir. vini rect., 3 v; saponis, 3 x. Mix. Sig. Use locally.

FOR INFLAMED TENDONS.—A mixture of tinct. bellad. 1 part, and tinct. iodine 8 parts, makes a liniment which is a grateful application to inflamed tendons.

FROST BITES.—Bals. copaiba is claimed to be a specific for frost-bites, one or two applications being often sufficient to establish a cure.

WARTS.—A mixture of the following painted on warts will cause them to become detached: Concentrated acetic acid, 10 parts; precipitated sulphur, 20 parts; glycerin, 50 parts.

FOR BURNS.—As an application for burns Prof. Haas dissolves 1 or 2 parts of aristol in 4 parts of olive oil, and adds this to 8 parts each of petrolatum and lanolin, making a homogeneous ointment of the whole.

A PURGATIVE ENEMA.—An efficient enema for use in cases in which a prompt and thorough evacuation is desired is made by mixing equal parts of magnesium sulphate, glycerin, and water, and adding about 8 per cent. of oil of turpentine.

ANTISEPTIC POWDER (Cazozzani).—℞ Pulv. camphorae, 5 parts; bismuth subnit., 20 parts; ac. salicylici, 20 parts; iodoformi, 55 parts. Mix. Sig. As an application to wounds and ulcerous surfaces.

RICKETS IN DOGS.—℞ Phosphorus, gr. j; spir. vini rect., 3 v; spir. menth. pip., m xxx; glycerini, 3 ij. Mix. Sig. Six drops in water t. i. d. After the lapse of one week another drop may be added.—*Chem. Gaz.*

FISSURE OF THE ANUS.—Cleanse the fissure thoroughly with hot water and apply the following salve: ℞ Iodoformi, ac. bo-

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racici, $\frac{3}{4}$ ij ; bals. Peru, gr. xxx ; vaselini, $\frac{3}{4}$ iv—vj. Mix et fiat unguent. The above is also a fine local remedy for anal ulcers, and pruritis of the genitals in both sexes.

ANTISEPTIC ADHESIVE OINTMENT.—Rx Zinci oxidi, gr. v ; zinci chloridi, gr. xx ; gelatinae, $\frac{3}{4}$ v ; listerin, $\frac{3}{4}$ j. This dressing protects the surface of the wounds and dispenses with the use of bandages. It is especially of service for the dressing of wounds on the face.

FOR PRURITIS ANI.—Berger introduces into the anus a pleglet of cotton soaked in a saturated solution of chlorinated lime, and leaves it there until a slight smarting manifests itself. The region should be washed and left undried. Itching disappears as if by magic, but the proceeding must be repeated when it returns.

FOETID NASAL DISCHARGE.—Remarkable results are obtained by painting the nasal cavities with a solution of trichloracetic acid. The painting is done by means of a piece of cotton-wool fixed on the end of a flexible wire, steeped in a $\frac{1}{10}$ of 1 per cent. solution. The operation is done three times daily for the first few days and then once a day. The strength of the solution is gradually increased.

SOCIETY MEETINGS.

PENNSYLVANIA STATE VETERINARY MEDICAL ASSOCIATION.

ADDRESS BY PRESIDENT DR. LEONARD PEARSON.*

Fellow-members of Pennsylvania State Veterinary Medical Association.—The years that have just passed have made great changes in our profession and in our work. The decade preceding 1893 was one of marvelous growth in veterinary schools, and in the number of veterinarians graduated in this country. During this period horses sold for unprecedented prices, and probably abnormally high. A great many inexperienced men engaged in breeding horses, and there was great demand for the "horse doctor." I use the term "horse doctor" advisedly, and in order to distinguish between him and the veterinarian, who is a much broader man. The domain of the veterinarian includes not only the horse, but every other species of domestic animal. Meat inspection, milk inspection, dairy-inspection and veterinary sanitation in general. At present the

* Read at meeting, March 3.

value of many classes of horses is greatly reduced, their owners are less willing than formerly to expend considerable sums for the treatment of their various ailments, and the one-sided veterinarian finds his services in less demand than formerly. I cannot believe, nor do those who should know most about this matter think, that the present low prices can long continue. Some horses are being sold for much less than the cost of production, and the breeding of horses is being discontinued in many places; but our export trade is rapidly growing, and as soon as there is a revival in the tone of general business in this country the demand for horses must inevitably be greater, and the supply and prices will go up; then also the legal restrictions that have been placed upon racing must soon become so obnoxious to free, self-respecting Americans that they will be materially modified, and racing, the sport of kings, will again become popular, with the attending impulse that this will give to the horse breeding industry in every section, even the most remote, of our country. On the other hand, our live-stock industry is in a most flourishing condition, and more attention is being devoted to dairying, the production of superior cattle, sheep, swine, dogs and fowls than ever before; and the broad veterinarian, whose work includes the consideration of the sanitary, medical and surgical questions in connection with these last industries has his hands full and his services in increasing demand.

The value of expert veterinary advice in relation to the diseases of many of our domestic animals has never been sufficiently appreciated, through lack of opportunities to draw upon the knowledge and skill of the veterinarian. Breeders and farmers in many parts of the country have fallen into the habit, which is usually an inherited one, of depending upon their own narrow resources when their animals become ill or unthrifty from causes which they do not understand. A great part of the responsibility for this state of affairs rests with the veterinarian, because he has specialized to such an extent upon the diseases of horses that his broader domain is not sufficiently recognized.

It is the duty and privilege of the veterinarian, and this should be more generally understood by the public, to advance in every possible way the true and permanent interests of the live-stock industry, for this is the industry that we are trained to advance and protect, and from which we derive our livelihood; to do otherwise would be impossible. Notwithstanding this, veterinarians have recently been accused by some, who certainly must have known better, of conspiring to injure the source of

their own income and profit. The position that the veterinary profession has taken in regard to bovine tuberculosis has been the ground for some bitter attacks upon us, but has alienated no true friend of the dairy farmer. The attacks which have been made upon us in this connection are not without precedents. When it became necessary a number of years ago for the Government and for states to adopt measures which would exterminate contagious pleuro-pneumonia in cattle, which at that time threatened the cattle industry and its millions of invested capital, the necessary inspections and restrictions were met by the strongest opposition, vituperation and sometimes physical resistance. The leading veterinarian of New York State was denounced as a conspirator against the dairy and a seeker for personal gain at the expense of the public. The opposition to this work was in some cases so bitter as to drive able men from the field.

Their motives were misrepresented, acts distorted and methods ridiculed, but what was the result? Contagious pleuro-pneumonia, which has caused untold misery and loss in European countries, in Africa and Australia, has been completely exterminated from our soil, and at a cost infinitely small when compared with the inevitable effects of the disease if efficient means had not been adopted. But in England, where the only efficient method could not be enforced, on account of adverse public sentiment, the disease persisted and continued its devastations for years, until it was found that the original recommendations of the veterinary profession *must* be acted upon, after which progress was rapid. In reference to rinderpest, foot-and-mouth disease, eldurine, glanders, sheep-scab, and many other diseases, striking and convincing illustrations of the same sort might be cited, all of which tend to show that as regards the subjects which properly come within the scope of the veterinary profession, its opinions are reasonable and safe.

We should, therefore, strenuously avoid any action that is not well considered and thoroughly sifted before official and formal opinion is expressed upon it. We must spread out broader and prepare ourselves more fully to perform the public duties that will soon be incumbent upon us. Meat inspection, dairy inspection and milk inspection are subjects that are growing in importance. Affairs that required no public supervision a few years ago must now, for the welfare of the public, be subjected to some sort of control. There was a time when every consumer could trace each article of home consumption to its source and deter-

mine its character; but as trade and competition increased, sources of supply became more and more remote, and frequently the quality deteriorated so that it became necessary to have appointees to perform the work which the individual consumer could not do, from lack of time, of facilities, and of knowledge. In this way various boards and inspectorships originated. At present the general government employs meat inspectors in each of the large centres of supply, and its force is growing rapidly. Municipalities employ meat inspectors, and their work is so valuable that this system is also increasing. The time will come in this country, as it has in some foreign countries, where all meat *must* be inspected by the veterinarian at the time of slaughter. The benefits to the public health which would accrue from the enforcement of this plan would be infinite when compared with the cost. Heretofore conservatism has prevented such supervision, but at present many are requesting it because they appreciate the advantage of superior reputation which such supervision gives their products.

Dr. Pearson then gave an account of the State Live Stock Sanitary Board, how it is constituted, what its object is, what authority it possesses, what it proposes to do, and also spoke of scientific work that it is desirable to do.

ALUMNI ASSOCIATION OF AMERICAN VETERINARY COLLEGE.

The nineteenth annual meeting of the Alumni Association of the American Veterinary College, was held in the lecture-room of the college building on March 25, 1896, at 2:30 P. M., and was called to order by the President, Dr. E. B. Ackerman.

After roll call, showing 27 members present, the minutes of the last meeting were read and approved.

The report of the Committee on Revision of By-Laws (articles 1, 2, 3, 4, 5, 6, 7), was accepted. The remaining articles were not completed, so the committee was continued.

The Executive Committee reported progress.

Treasurer Dr. Hoskins moved that his report be given to an auditing committee. Drs. Coates, Morrison, and Neher were selected as such committee and found the report correct.

The next order of business was the admission of new members. The graduating class was admitted in a body as members, which was followed by an address by the President, Dr. Ackerman, which was instructive to new and old members alike.

The election of officers being next in order, the following were elected for the ensuing year: President, Dr. L. H. How-

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ard, of Massachusetts; Vice President, Dr. J. B. Hopper, of New Jersey; Secretary, Dr. Otto Faust, of Poughkeepsie, N. Y.; Treasurer, Dr. F. R. Hanson, of New York City; Librarian, Dr. W. V. Beiser, of New York City.

The next order of business was the election of members to the board of trustees.

Drs. L. H. Howard, Chas. Burden, and W. H. Lowe were elected as members to the board of trustees. The Secretary was instructed to notify the board of trustees as to the members elected.

The report of State Secretaries being next in order, Dr. Wray, of England, sent a lengthy report, which was read by Sec. Dr. Dair. Also reports of Dr. Fenimore, of Tennessee, and Dr. Faust, of New York.

Dr. Doepel moved to adjourn, seconded by Dr. Kaiser, and carried.

M. J. DAIR, *ex-Secretary.*
OTTO FAUST, *Secretary.*

VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY.

The regular meeting of this Association was called to order at the Academy of Medicine, Tuesday evening, May 5th by the President, Dr. Huidekoper, at 8.45 P. M. On roll-call the following members responded: Drs. J. S. Cattanach, J. S. Cattanach, Jr., Delaney, Ellis, Ferster, Giffen, Gill, Huidekoper, Hanson, MacKellar, Neher, O'Shea, Robertson, Sherwood and Turner. (15) The minutes of the previous meeting were read and approved.

The Board of Censors having no business to report, and there being no papers, the time was given to discussions, which was opened by Dr. Robertson, who asked whether the Board of Health had a right to take possession of, and to destroy animals that show a reaction to the use of mallein, without any other outward signs of glanders. A general discussion followed on that point, and on the symptoms of glanders in its various stages, and finally the following resolution was offered:

Resolved, That the chair appoint a committee of three to communicate with the Boards of Health of the City of New York and of the State of New York, and to investigate the value given by law to the inoculation of glanders by mallein, and the extent of authority of the Boards of Health in the quarantining and condemning of suspicious cases of glanders.

The chair thereupon appointed the following committee: James L. Robertson (Chairman); H. D. Gill, Robert W. Ellis (Recorder).

Reports of Cases.—Dr. Gill gave a few reports on the use of antitoxine in tetanus with negative results.

Dr. Hanson reported a case in which the symptoms became aggravated immediately after the injection of the antitoxine, which did not abate until relieved by death, which soon followed.

Board of Censors, Dr. O'Shea, chairman, reported that our long-hoped-for jury bill failed to pass the Senate.

He then read a list of names of men registered in New York County since Oct. 1st, 1895, followed by a report on the investigation made by the committee, on cards that were handed in at the last meeting, to the effect that none of the men to whom their attention had been called were registered, but that they had so far failed to get an interview with them. Moved and seconded that the report be accepted. Carried.

Next in the order of business was the reading, by the Secretary, of the resignation of J. H. Ferster, V.S. The chair then asked the meeting their pleasure in the matter. Moved by Dr. Hanson and seconded by Dr. O'Shea, that the matter be laid over until the next meeting. Amendment by Dr. Gill, that it be acted upon at the present meeting. Vote on amendment lost. Vote on the motion carried.

New Business.—Moved and seconded that a committee of three be appointed by the chair to draft resolutions for alteration of that section of the By-Laws, covering the night of meeting. Carried. The following committee was appointed: H. D. Hanson (Chairman), J. S. Cattanach, T. Delaney.

Moved and seconded that the Secretary be authorized to obtain a bill from the Chairman of the Judiciary Committee for expenses of that committee. Carried.

Dr. O'Shea then notified the chair that a committee from the Horseshoers' Association was outside, with the request that the V.M.A.N.Y.C. indorse their candidate for Master Horseshoer on the Horseshoers' Examining Board, Mr. O'Neil, and that the V.M.A.N.Y.C. appoint one of its members as candidate for Veterinary Examiner of said Board.

Moved and seconded that the chair appoint a committee of three to recommend the name of Mr. O'Neil to the Governor as a member of the Horseshoers' Examining Board, and with the power to appoint a veterinarian.

The following committee was appointed: Thos. Giffen (Chairman), H. D. Hanson, F. W. Turner.

Moved and seconded that the members of the V.M.A.N.

Y.C. elect a veterinarian to the examining board at the present meeting. Carried. Dr. Gill was unanimously elected.

Moved and seconded that the meeting adjourn. Carried.

ROBERT W. ELLIS, D.V.S., *Sec.*

NEW HAMPSHIRE VETERINARY MEDICAL ASSOCIATION.

The Annual Meeting of the New Hampshire Veterinary Medical Association, convened in the Eagle Hotel, Concord, Tuesday, May 5th, at 11 A. M., with Vice-President Dr. Hart in the Chair.

Drs. Hart, Maguire, Libeo, Abbott, Wilkinson, and Pope answered to roll-call.

The following officers were elected by ballot for the ensuing year: President, T. G. Libeo, M.R.C.V.S.; Vice-President, F. E. Wilkinson, D.V.S.; Secretary and Treasurer, L. Pope, Jr., M. D. V.

Following the election of officers a discussion ensued over the action taken by Dr. Geo. H. Bailey, of the Maine Cattle Commission, against New Hampshire Veterinarians.

The Secretary was instructed to notify the Massachusetts Cattle Commission of non qualified men making tests with tuberculin now acceptable to that Board.

A paper was read by Dr. Abbott on Homceopathy in Veterinary Medicine which was most excellent in its preparation and delivery. The discussion following showed a strong feeling against the new school.

The reports of the Secretary and Treasurer were read and accepted.

The meeting adjourned at 1 P. M. until the September meeting.

L. POPE, JR., M.D.V., *Sec'y.*

PENNSYLVANIA VETERINARY EXAMINING BOARD.

REPORT OF THE SECRETARY.*

MR. PRESIDENT AND GENTLEMEN: As Secretary of the State Board of Veterinary Medical Examiners, I have been requested to present a brief report of the doings of the Board. At our meeting in September last at Cresson Springs, as you were then informed, no appointments had been made by the Governor to carry

* Read at meeting of the Pennsylvania State Veterinary Medical Association, March 3, 1896.

into execution the requirements of the act, and though the law went into effect nominally on Sept. 1st, not until Oct. 11th were the appointments made, after earnest solicitation that certain difficulties in its execution might be obviated. On this latter date, Governor Hastings named the appointments as follows, their terms to compute from Sept. 1st, 1895: for three years, W. Horace Hoskins and Simon J. J. Harger; for two years, J. C. McNeil, of Pittsburg, and Harry Walters, of Wilkesbarre; for one year, J. W. Sallade, Pottsville.

At 12 noon on November 13th the Board was sworn in at Harrisburg and their organization completed by the election of Dr. S. J. J. Harger as President and W. Horace Hoskins, Secretary. After a general conference of the methods to be followed the various subjects for examination were severally allotted to the different members of the Board and a sub-committee appointed to draft suitable by-laws for presentation and adoption at a subsequent meeting of the Board, held in Philadelphia, on the third Monday in December. At this meeting by-laws were adopted for the guidance of the Board, and no candidates presenting themselves for examination, the consideration of several alleged violations were referred to the Secretary for further investigation. One of these proved to be a graduate of Ontario, and who having changed his location several times, gave rise to the belief in the minds of one of our members that he was in violation of the act. The investigation found him properly registered in the State for several years and entitled to all the privileges of the several acts relating to the practice of veterinary science in our Commonwealth.

The second case has proved a very annoying one to the Board and will be prosecuted in the court channels this month. The violator, one E. S. Hudson, of York County, a former resident and citizen of Maryland, coming into the State during the year 1895, a non-graduate and failing to register, was notified by local veterinarians of the dangerous position he was assuming. Subsequently he repaired to Harrisburg, the county seat of Dauphin County, and there on Oct. 11th, 1895, in violation of the Acts of 1889 and 1895 he was registered by the County Prothonotary. On learning this we immediately placed ourselves in correspondence with the Prothonotary, and notifying him of the violation of the State statutes, which was thus perpetrated, he acknowledged the error, and will at the next session of the Court have issued a writ upon the said E. S. Hudson, to show cause why his name should not be stricken from the register, on the grounds

of false registration, and the Board having given him an optional time to leave the State, at his request, his failure to comply with this agreement in the time limit given, compels the Board to enter suit at once. These facts having been placed in the President's hands, he has arranged to bring suit at once in the name of the Board.

Another case has come to the attention of the Board, but with insufficient data to act upon. The one charging the violation is a layman and seems more eager to punish the supposed violator than to see a proper enforcement and recognition of the requirements of the act. It is under further investigation at present and will be acted upon as indicated by the exact nature and surroundings of the case.

The third meeting of the Board will be held in Philadelphia, on the third Tuesday in April, the hour and place to be designated at a later date. Already a number of applicants are waiting and there will probably be in the neighborhood of twenty to come up for examination.

The Board already realizes the incomplete character of the act in failing to properly provide for the necessary funds to carry properly into execution the several provisions of the act. As all the expenses are to come out of the fund realized by the license fees, which are fixed at ten dollars each, and as these for a number of years must be necessarily very limited, the expenses of the Board, considerable for traveling, stationery, books of registry, etc., and all prosecutions of violations of the act to be carried on by the Board, we are somewhat alarmed at the prospect of much litigation which will demand a considerable outlay of money. The license fee should not have been changed from twenty-five dollars to ten dollars, particularly when this act will afford the greatest protection and benefit to those who are successful in passing the Board and receive its license to practice within our borders. The freeing of the registries of several counties of our State from those names of persons who are dead, or who have removed from the State, or in other ways violated provisions of the Act of 1889, is a work that cannot too soon be engaged in by our Association, in co-operation with the Board, and I trust will receive consideration at your hands to-day.

Very respectfully,

W. HORACE HOSKINS.

Sec. Board Veterinary Examiners.

CORRESPONDENCE.

MALLEIN BRUTE.

CHICAGO, May 11, 1896.

Editors American Veterinary Review:

DEAR SIRS:—Will you allow me to correct a rather peculiar mistake that occurs on the thirteenth line of page 165 of the May number of VETERINARY REVIEW? The Mallein which we supply is made at the Pasteur Institute in Paris. Pure Concentrated Mallein is known in France as "Mallein Brute," and this is the title on the label. The word "Brute," meaning raw, or concentrated, has evidently been mistaken for the manufacturer's name! I trust you will find room for a couple of lines making the correction, in your next number.

Yours truly,

HAROLD SORBY,

Manager Pasteur Anthrax Vaccine Company (Limited).

AN INQUIRY—INTERNATIONAL VETERINARY CONGRESS AT CHICAGO.*

To the Director of the American Veterinary Review:

DEAR SIR AND HONORED CONFRERE:—May I be allowed to ask you a question in relation to the International Veterinary Congress of Chicago? Though I have sent my subscription to the committee at the proper time, I have not yet received the *comptes rendus* of this great professional reunion.

Could you tell me if these *comptes rendus* have been published and if I can hope to ever receive them?

It is true, that I had addressed to the congress a work upon the inspection of meat, but I became a subscriber principally to obtain the reports of the international veterinary meeting of Chicago. Will my desire, so far unrealized, remain so forever? I cannot believe it.

Can you inform me on this subject? Kindly accept, with my sincere thanks, the expression of my perfect consideration.

CH. MOROT,
Municipal Veterinarian.

Rue des Tauxelles 20—Troyes-Aube.

BACK NUMBERS WANTED AND TO SELL.

Editors American Veterinary Review:

I would like to get Nos. 3 and 7 of Vol. II., AMERICAN

* Translated from the original French.

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VETERINARY REVIEW, if possible. The bookbinder has all the numbers of Vol. I. except 1, 11, 12, which he would like to dispose of. Hoping you will be able to supply me with above numbers, I remain

Respectfully,

W.M. DOUGHERTY, D.V.S.,
1035 Cathedral Street, Baltimore, Md.

AS TO THE ILLEGALITY OF TAIL-DOCKING.

Editors American Veterinary Review:

DEAR SIRS:—Will you please state through your very interesting publication if there is any law upon the statute books of the State of New York against the operation of docking horses' tails, and direct me to the specific act? By so doing you will confer a great favor upon

A SUBSCRIBER.

Answer.—There is no specific law in New York State against the operation in question, but the American Society for the Prevention of Cruelty to Animals undertakes to prosecute offenders under the general laws of cruelty to animals. They seldom, however, make an arrest, although the mutilation of horses by removing their beautiful tails is being practised upon an increasing scale, and, we are sorry to say, by many members of the veterinary profession who are highly esteemed. New Jersey and some of the Western States have specific laws against it. There are also higher laws than those enacted by man which cry loudly to the veterinarian to stop their barbarity to man's faithful servant, whom we claim as our special charge. If the graduated veterinarian does not disown this mutilation, and lead the sentiment against it, to whom can the horse appeal?—EDITOR.

MALLEIN AS A CURE FOR GLANDERS.

CHICAGO, May 23, 1896.

Editors American Veterinary Review:

GENTLEMEN:—As you are probably aware, the question of glanders in horses, and its diagnostic agent, mallein, has for some months past been a prominent subject of study and discussion in scientific and veterinary circles in France. At recent meetings of the Société Centrale de Médecine Vétérinaire (France), Dr. Nocard has presented the results of his experiments with mallein as a curative of glanders, the experiments having been carried out in conjunction with Dr. Roux, of the

Institut Pasteur. The conclusion reached was that glanders could be cured with mallein.

I wrote to the *Institut Pasteur* for further information on the above subject (curative treatment), and am this morning in receipt of a letter from them, of which the following is a translation:

"We received your letter of the 4th inst., which we have communicated to Dr. Roux, who has requested us to make the following reply:

"1. The dose of mallein solution is 2.5 c. c. for a horse of medium weight.

"2. In considering the reaction indicating glanders it is necessary to take into consideration

"1. The rise in temperature.

"2. The local oedema.

"3. The general condition of the horse.

"3. When a horse indicates complete reaction, inject 2.5 c. c. at intervals of about one month. The horse may be considered cured when he has shown no reaction at two consecutive injections.

"4. All horses treated in this way are not cured, the treatment being effective only upon those which have but slight lesions.

"5. The animals under treatment should be isolated."

Trusting that this information may be of interest to your readers, and holding myself at your disposal for any further particulars that you may desire, I remain,

Yours truly,

HAROLD SORBY,

Manager Pasteur Anthrax Vaccine Company (Limited).

NEWS AND ITEMS.

MARRIED.—On 2d inst., in Brooklyn, George J. Goubeaud, D.V.S., to Miss Emma Bernardine Quinn, both of Brooklyn.

DR. FRANK S. ALLEN, of Chicago, has been offered a chair at the McKillip Veterinary College, but he has declined the honor.

DR. LOUIS H. HEMPELMAN, of St. Louis, Mo., a graduate of the American Veterinary College, has recently received the degree of M. D.

DR. GILL has been nominated by the New York County V. M. Association as the veterinary member of the Horseshoers Examining Board.

"DAIRY BACTERIA" is the title of an interesting article by Allen S. Heath, M. D., of Brooklyn, which is contributed to the July REVIEW.

THE MEMBERS of the Veterinary Medical Association of New York County are much pleased with their apartments at the Academy of Medicine.

DR. A. H. BAKER, of Chicago, has recently allowed himself the luxury of a marriage and purchase of a new and handsome residence. We wish the good doctor happiness.

DR. J. H. HONAN has resigned his professorship at the Mc-Killip Veterinary College. He and his bride are now making a tour through England, Scotland and Germany.

THE BOARD OF HEALTH of St. Louis is compelling the inspection of dairies to improve the quality of the milk. They are also manufacturing tuberculin to test the cattle.

MISSOURI STATE VETERINARIAN.—Dr. F. E. White, of Sedalia, has received the appointment of State Veterinarian, to succeed T. J. Turner, D.V.S., whose term recently expired.

GLANDERS is quite common in some portions of New York City. The appropriation for glandered horses in the State of New York has run out, so that owners are no longer reimbursed.

ON account of the open winter and the low price of horses, veterinary practice has been quite poor in the vicinity of New York. The spring months have been much better, with still better prospects for the summer.

IT is reported that Dr. R. G. Walker, of Chicago, is endeavoring to organize a Chicago Veterinary Society. With a hundred veterinarians within the city limits there is certainly ample material for an active and bright association.

BROOKLYN, N. Y., has five graduated veterinarians employed in her various departments—three in the Board of Health, one each in the Police and Fire Departments. Four are graduates of the American Veterinary College, the other an M.R. C.V.S.

UNTIL matters can be changed, the country practitioner in New York State is debarred from the privilege of serving upon juries, while his brother in New York city and Brooklyn can

enjoy the luxuries of the court-room and draw his stipend in the bargain.

THE NEW YORK COUNTY ASSOCIATION at its last meeting appointed a committee to communicate with the Board of Health of the city and State of New York, and to investigate the value given by law to the inoculation of glanders by mallein and the extent of authority of the Health Boards in the quarantining and condemning of suspicious cases of glanders.

AT THE BROOKLYN HORSE SHOW, held the 4th, 5th, 6th, 7th, 8th and 9th of May, the lack of veterinary examination of the entries was clearly shown, as in one or two instances lame horses were awarded prizes over sound ones, and the judges in one case rejected a very valuable road team for "curby hocks," which the owner very promptly proved incorrect by certificates of well-known members of the profession.

DR. WM. V. LUSK, veterinary surgeon to the Second U. S. Cavalry, stationed at Fort Wingate, N. M., will enjoy a furlough through June and July at Ashtabula, Ohio. The doctor is a frequent contributor to the practical writings of the REVIEW, and his cases are always interesting. We trust some of his leisure moments may be utilized to good account by recording some of the cases from his note-book for the benefit of REVIEW readers.

GRUNTING IN HORSES.—A circular letter was sent by the Lincolnshire Veterinary Medical Association to the Southern Counties Veterinary Medical Association (England) asking a general expression of opinion of the members upon the above subject, and after a liberal discussion, it was decided that a reply be sent as follows: "That in the opinion of this meeting, 'grunting' in horses does not necessarily constitute unsoundness."

Dr. A. W. CLEMENT, of Baltimore, has recently been appointed State Veterinarian of Maryland, and too much cannot be said for the wisdom of the appointive power in having selected this scholarly and enthusiastic member of the profession for that position. His former connection with the federal control of contagious diseases, his natural bent for investigation, all tend to make him peculiarly fitted for his new position, and we are sure the profession and the country will be large gainers through his accession.

THE MODERN HORSE SHOW is doing more to encourage and popularize the well-bred pleasure horse than any other aggrega-

tion of factors now in existence. For the more popular this class of animal becomes, the better it is for the veterinarian. When the horse becomes a part of the household his ailments are cared for, not from a dollars-and-cents point of view, but as a matter of affection—endeared to the owner by his traits of gentleness, faithfulness, and other noble qualities. It behooves the veterinarian then to stimulate interest in the horse show, to encourage the purity of the contests, and when acting in the capacity of examiner to such exhibitions to insist upon fairness and exact justice in his estimate of the quality of soundness.

RINDERPEST IN SOUTH AFRICA.—Through the courtesy of Wm. Sheppard, M.R.C.V.S., of Sheepshead Bay, L. I., we have received a copy of the Bulawayo (Matabeleland) *Chronicle* of March 21st, which presents the most alarming evidences of a conviction that the dreaded rinderpest has attacked the cattle of that country, and the Government has taken hold of the cattle industry with a determination to throttle it before its devastating spread generally. To this end the movements of all cattle have been entirely suspended, and the inhabitants are suffering considerable inconvenience and privation, as the oxen (their chief beasts of burden) are under strict quarantine. We notice that Dr. Charles E. Grey, formerly an assistant to Dr. Sheppard, at Sheepshead Bay, is the Government Veterinary Inspector in charge of the outbreak, and through his printed quarantine regulations gives the symptoms and post-mortem lesions of the prevailing disease, which very closely resemble "The Plague."

SOME "DON'TS" FOR VETERINARIANS.—Don't undercharge your brother veterinarian . . . Don't take a brother practitioner's case without first consulting him . . . Don't think you have nothing to learn but read the leading veterinary journals . . . Don't talk too much about your cases—the silent man has nothing to withdraw . . . Don't use your patients roughly . . . Don't make agreements without fulfilling them . . . Don't torture animals unnecessarily . . . Don't speak disrespectfully of another practitioner as regards his qualities as a veterinarian . . . Don't work against your fellow veterinarian; it is better for both to work hand in hand . . . Don't speak ill of those men who have worked faithfully and conscientiously for the benefit of the veterinary profession, while you yourself have done nothing . . . Don't let non-registered men practice; you have spent time and money to learn and let others do the same . . . Don't forget that a man is known by the company he keeps

. . . Don't as a veterinarian, deal in horses as it tends to degrade your ability as a practitioner in the eyes of the public

. . . Don't forget to join veterinary societies and contribute something towards their welfare, if only to report cases . . . Don't forget to subscribe for the AMERICAN VETERINARY REVIEW and other leading veterinary journals. "F. X. T."

THE IMPORTATION OF HORSES INTO ENGLAND.—The London (England) *Veterinary Journal* for May says: "The imports of horses continue to increase, and during the quarter ended March 31, they numbered 9210, against 4353 last year. Of the number imported this year, 6320 came from the United States, against 2904 last year; 791 from Canada, against 2; and 2099 from other countries, against 1447. The value of the horses imported this year was £240,540, against £131,939, the average value being a little over £26, showing that horses of an improved class are being imported. But when we turn to the exports we find some figures which must excite comment and action. There were 6334 horses exported, against 3755, and of these 1624 went to Holland, 3440 to Belgium, 673 to France, and 597 to other countries. The value of the exported horses was £113,899, against £74,414 last year, the average being only about £18. Examining the figures more closely, it appears that the average price of the horses exported to France was £53 per head, and of those exported to 'other countries' the average price was £44 per head. These are perfectly satisfactory figures, and show that so far, at least, the right kind of export trade has not wholly disappeared. But the value of the horses sent to Holland was only £9, and Belgium £10. Now, what description of animals can be bought for exportation at £10, and what purpose are they intended to serve? In some cases they would appear to be meant for the knackers. There have recently been police-court proceedings, and revolting statements have also been published as to horses being sent to feed leeches, which seem to throw some light on the subject. The statistics afford materials on which the R.S.P.C.A. should be able to set to work with some good results. This is a kind of export trade that ought to be closely scrutinized and suppressed."

ASSISTANT WANTED.—A young man of two or three years' experience in a mixed practice, energetic, not afraid of work, and preferably a graduate of the American Veterinary College. Address, at once, "BELLMONT," care AMERICAN VETERINARY REVIEW, 141 West 54th Street, New York City.